INTERPRETING THE PAST

Presenting Archaeological Sites to the Public

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Proceedings of an International Conference on New Approaches and Technologies for Heritage Presentation

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INTERPRETING THE PAST
volume I

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Presenting Archaeological Sites to the Public

Flemish Heritage Institute
Provincial Archaeological Museum Ename
Francqui Foundation
Province of East-Flanders
Ename Center for Public Archaeology and Heritage Presentation

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FOREWORD

With the publication of this volume, Interpreting the Past: *Presenting Archaeological Sites to the Public: Proceedings of an International Conference on New Approaches and Technologies for Heritage Presentation*, we are pleased to announce the inauguration of a new international forum for discussion of the theory, technologies, methodologies, and social implications of the public interpretation of archaeological sites, monuments, and historic landscapes. The 1998 conference, sponsored by the Francqui Foundation and documented in this volume, led to the establishment of a wide range of international contacts and cooperative activities in this field, and the Flemish Heritage Institute is gratified to be able to play a continuing role in the development and advancement of the public interpretation of archaeology.

Indeed, in recent years, the importance of public interpretation and the tools with which the significance of cultural heritage can be most effectively communicated to the public have become matters of great concern. Archaeological sites and historical monuments in every continent are in immediate danger, not only of physical destruction, but in danger of losing their cultural value by being overly-commercialised, overrun by too many visitors, or, even in some cases, being exploited for political or ideological ends.

It is evident that scholars, government officials, heritage professionals and community leaders must increasingly turn their attention to the effective presentation of archaeological and historic sites. They must work closely together to establish professional and practical standards to ensure the cultural value and economic sustainability of heritage development projects throughout the world. To that end the Flemish Heritage Institute is proud to present a new series, to be entitled *Interpreting the Past,* that will offer an international forum for discussion and presentation of important new technological and methodological developments in the field of heritage presentation and management. It will feature continuing scholarly and specialist discussions on the ethics, philosophy and practical methodology of heritage presentation.

In accordance with its mission as an international journal, the primary language of *Interpreting the Past* will be English, with Dutch and French summaries of all contributions. In the coming months, with the official appointment of the editorial board and international scientific advisory board for this new series, we look forward to the publication of new numbers of the journal on a regular basis, under the auspices of the public communication division of the Flemish Heritage Institute.

Because of the importance of the 1998 Interpreting the Past Conference, we have chosen selected papers from the participants for the first volume of the new series. Indeed we would like to thank the scholars and specialists who participated in the 1998 Interpreting the Past Conference and express our appreciation for the generous sponsorship of the Francqui Foundation on that occasion. Our deepest thanks are also due to the Flemish Community and the Province of East-Flanders for their continuing support in the field of heritage presentation and research.

Interpreting the past effectively and responsibly - and with care to maintain high standards of cultural and scientific integrity - is a great challenge in our 21st century world of rapid development, physical threats to material heritage, and social change. We therefore hope that this new international journal can make a contribution to scholarly and public awareness of the significance and shared value of archaeological sites, monuments, and historical landscapes.

Dirk Callebaut
Acting Director
Flemish Heritage Institute

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The Franqui Foundation
Brussels, 5 October 1998

GREETINGS AND INTRODUCTION

Herman Balthazar
Governor
Province of East-Flanders, Belgium

It is my great pleasure to welcome you all to this international conference on interpreting the past. As chairman of this conference and governor of the Province it is my honor to welcome this distinguished audience of scholars, professionals, representatives of international organizations and government officials brought together by your common interest in the promotion and development of public interpretation of archaeological and historical heritage.

As many of you may be aware, or will soon learn in the course of your deliberations and your visit to Ename, our Province is keenly aware of the importance of history and heritage in the enrichment of its cultural life. Our archaeological record offers an unbroken record of Flemish cultural adaptation and survival over many millennia. A clear example of that continuity is to be seen in the excavations at Ename and in the monuments of the village, such as the tenth-century Saint Laurentius church, which is still very much the core of the community's life.

As governor of the Province of East-Flanders and as historian, I have been asked to offer some brief remarks on the role of public interpretation in our heritage policy. I would like to concentrate on the following themes: the nature of heritage in this province; the unique features of the Ename Project; its relevance to the methodology of heritage interpretation, presentation and management in other parts of Belgium, Europe, and perhaps the world; and finally the possible directions in which this undertaking may develop in the future.

Our archaeological record, which begins in the Paleolithic Period, offers an unbroken record of cultural adaptation and survival over many millennia. Our preserved and protected historic structures and architectural masterworks are plentiful, as one can see in Bruges and in the largely intact medieval core of our provincial capital city of Ghent. Our historical sites and museums span nearly the entire range of our historical experience, as the provincial museum at Velzeke (of the Roman period), Ghent's Museum of Industrial Archaeology, and the impressively restored early 20th century Vooruit Arts Centre and Socialist Union House on the Vrijdagmarkt testify. Of course heritage is not merely stone, brick, or objects in display cases. The non-material culture of East-Flanders, such as the performances of the Flemish National Theatre, or the concerts, lectures, and theater events throughout the province – represent a vibrant, living heritage of word, image, and creativity that is still very much in the process of development.

These extensive cultural resources are important to us on many levels, not least on the level of the local community. For as much as the highlights I have mentioned are of interest to visitors to Belgium from all over the world, there are countless monuments, sites, and landscapes that represent the precious heritage of small and, in some places, tiny communities. For these places too, heritage is important. And we have attempted to do our best, working with the Flemish Heritage Institute, the Administration of Landscapes and Monuments of the Flemish community, the Municipality of Oudenaarde, and through the efforts of our own provincial department of culture under the leadership of Deputy Van Der Meiren, to give support to a wide range of groups and institutions. The object of our policy is to make our heritage accessible, understandable and enjoyable for the largest possible portion of the population.

Although natural, architectural and historical heritage can be found all over Europe, traditionally each of these elements of heritage has remained the preserve of particular specialists. Yet in recent years we have come to recognize an increasing need to communicate the significance and full variety of our heritage to the general public in innovative ways. Over the last quarter-century, Flanders in general and East-Flanders in particular, have become the scene of great advances in high-technology and multimedia. It should therefore be no surprise that these new media are beginning to be utilized in the illumination and communication of our history and heritage.

And so I turn to Ename. Few would have predicted twenty years ago that the small village of Ename would be part of an international heritage conference. Ename and the adjacent town of Oudenaarde were of course known for their long and distinguished monuments and histories, and the memories of the Saint Salvator Abbey at Ename were still familiar to the local residents. But if you will permit me a personal note, as a professor of history and as one who is deeply interested in heritage concerns, I would say that the work carried on in Ename is especially noteworthy in both its scholarly and public aspects. Over the years I have watched the development of the project from an initial archaeological sounding to a more ambitious excavation, eventually to encompass the later history, natural ecology, archival record, and even the social history of the village of Ename in modern times. Naturally this work has been carried on at the highest scholarly level, but the academic work, the monographs, and scholarly lectures and articles that have emerged from the basic field research have never been seen as ends in themselves.

For us in the Province of East-Flanders, the great experiment of introducing high technology to the public presentation of archaeology is a source of considerable pride. Here for the first time a research-oriented excavation was seriously interpreted to the public in a form and through a medium that non-specialists and school children could understand. And what is so extraordinary, it seems to me, about the initial stages of the Ename Project was that through its initial efforts, the very definition of 'what' constituted heritage began to change. Every September in Flanders we hold an event called Open Monumentendag – "Open Monuments Day" – in which the public is invited to visit sites of cultural and historic importance without admission charge. And on Open Monuments Day in 1998, the Ename Archaeological Park was awarded the prestigious Flemish Monument Prize, the first time such an award was given to something other than a standing structure. Archaeology, it seems, was at last rightfully regarded as an essential part of Flemish heritage.

The opening of the public archaeological park at Ename was just the beginning; the state-of-the art Provincial Archaeological Museum Ename (PAM Ename) which was also the result of the devotion, creativity, and hard work of the Ename team. And here, the object has been to bring formerly distinct types of heritage together: discovered archaeological artifacts and experienced memories. This merging of living and ancient history has been presented to the local residents, to visiting school groups, and to foreign tourists on a high level with the aid of innovative high-technology. Thus the continuing support of the Ename Project by the Province of East-Flanders has been based on our conviction, a foundation of our 'heritage policy', that scientific research on Flanders monuments and history, no matter how important or profound, is far less valuable without its effective presentation to society at large.

We have found through our efforts in this field that there are two simultaneous levels of significance, the local and the universal, through which heritage interpretation most effectively works. One of the most important lessons that the Ename Project has offered to us is that purely local commemoration on the one hand, or highly abstract universalism on the other, are less desirable and certainly less effective extremes than a combination of both. This too is part of the reality of public life in East-Flanders and indeed in Europe today, where the evolving experiment of the European Union is attempting to forge a trans-national community in which the cultural patrimony and identity of particular regions is not lost. Obviously heritage and its public presentation have a large role to play in the modern social challenges of the coming years. And we are proud in East-Flanders to be involved in the experiment that the Ename Project represents.

It is our hope that the lessons learned and the experience gained here will be of interest and relevance to you in your discussions at this conference.

Once again, I want to welcome you to this important international meeting, and as a fellow historian and perservationist, I wish you every success.

WELCOME TO CONFERENCE PARTICIPANTS

Jean-Pierre Van Der Meiren
Deputy of Culture
Province of East-Flanders, Belgium

This morning I am honored to welcome all of you to the opening session of this international conference. I am also gratified to be able to say that the idea for this meeting arose because something succeeded. That 'something' was an attempt to present the heritage of a small Flemish village to the public through a combination of community dedication and new technology.

Back in 1982, when the first rescue excavations began at the site of Ename's ancient abbey, none of us could ever have predicted what might eventually develop from them. Over the years, the archaeologists and historians have made many important discoveries, but I am most proud of the fact that the general public benefited as well. The Ename Project gradually expanded from a purely scientific research project to include a public archaeological park, a state-of-the-art provincial museum, and an international heritage center with a busy program of scientific research, public events, presentation projects, and academic activities.

As Deputy of Culture of the Province of East-Flanders, I must stress that none of the achievements of the Ename Project would have been possible without close cooperation between scholars, government bodies, public institutions, and private individuals. Ever since the earliest days of the Ename Project, when I was serving in the Municipality of Oudenaarde, I have seen how its efforts were always guided by a powerful idea: that historical and archaeological research does not belong only to the scholars, but to the general public as well. So when Dirk Callebaut, the Ename Project leader, first contacted me in the early 1980s about involving the municipality in the presentation of the finds from Ename, I was enthusiastic about the idea. And I am pleased to say that the enthusiasm for Ename has continued to grow during the following twenty years. The support by the Province of East-Flanders of the development of the archaeological park, the museum, and the Ename Center have all been further steps in the same direction: toward enhancing the public awareness of, and appreciation for, the richness of their heritage.

I should add that as a modern historian, I have long been deeply interested in the far-reaching social, political, and economic changes that have affected the culture and daily life of Flanders in the last half-century. The goal of the Ename Project is not merely to celebrate the ancient artifacts of a very distant past. Every effort has been made to record and interpret Ename's story right up to the present, merging community memory with scientific archaeology to offer the local inhabitants tools to appreciate and understand their own past. That, too, is part of my deep interest in the Ename Project, as I am not only a public official, but also a lifelong member of this community. The public presentations of the Ename 974 Project and the PAM Ename express the universal values of heritage and community identity, but they also celebrate the unique cultural heritage of this area. We must never lose sight of that direct, personal power of heritage.

We firmly believe that heritage is not just an economic resource, nor is it a single community's private property. The guiding principle of this new type of heritage development and interpretation is one in which many goals are integrated and many different objectives achieved. It is an ongoing endeavor in which we hope you will join us to develop ever more effective methods of presenting and interpreting the past.

Once again, I want to wish all of you a warm welcome to Belgium, to East-Flanders, to Oudenaarde, and to this conference dedicated to exploring new approaches to interpreting the past.

INTRODUCTION TO SITE INTERPRETATION IN FLANDERS

Dirk Callebaut
Flemish Heritage Institute, Belgium

As an introduction to this conference, I would like to speak from the perspective of the Ename 974 Project, on which I and my colleagues of the Flemish Heritage Institute, have worked for the last decade. Our challenge at this meeting is to discuss the most effective and positive ways of presenting archaeological and historical heritage to the public, through education, technology, and physical conservation. But it should be pointed out that each of us at this conference, coming from Europe, the Middle East and the United States, has a different way of approaching that problem. We each have a different conception of 'heritage' and different answers to the question of how to present it.

But surely there are common elements. The very idea of 'presenting' heritage to the public implies that we, the presenters, understand at least something of what we are talking about. We seek to explain the ancient remains that are uncovered beneath city streets and at archaeological sites in rural areas. We seek to explain why certain ancient standing structures should be preserved and why they are of significance to modern communities. The traditional approach to the public interpretation of such monuments was unashamedly didactic. Visitors to historic monuments and archaeological remains were presented with facts and figures, based on the scholarly research undertaken there. Informational signs and the explanations of local guides stressed the uniqueness and historical value of the site, clearly, if unintentionally isolating it from its larger modern environment. Like a work of art or natural wonder, the heritage site was a cultural icon, an almost abstract symbol of the nation's patrimony.

Today, we concentrate far more on placing historical and archaeological monuments in a broad cultural context. We, of course, strive to present the public with the scholarly details of research. Yet we have increasingly turned our attention to improving methods of direct communication with the public - far different in style and content than normal academic discourse. These include educational programs designed specifically for school children and techniques of film, television, and interactive computer imagery for both children and adults.

There are, I believe, two main reasons for this. First is the fact that visitors to heritage sites comprise a far larger cross-section of the general population than ever before. With the growth of tourism within Europe and with the increasing movement of school programs out of traditional classroom settings, heritage sites now attract large numbers of visitors, perhaps even a majority of visitors, who do not have an extensive historical or archaeological background. In order for the sites to be made enlightening or even understandable, the public presentations must connect with the visitors' own experience. They must not only provide a broad background to the significance of the site in historical and archaeological terms, but they must also underline universal themes that the particular monument represents. After all, we are dealing with buildings and settlement remains that were constructed *by* people, *for* people, in a living world. And we must offer some sense of the living society in which the monument stood.

The second reason is more practical, if no less important. In recent years, the funding for historic preservation has become increasingly dependent on the support of public bodies, be they governmental institutions or private foundations. In an era of ever greater modern development across the world and with the conservation challenges more technologically exacting than ever before, the support of the public is essential. Tax revenues and philanthropic funds can be used for a wide variety of worthwhile cultural projects of which historic preservation is only one worthy cause among many. Thus we can see that effective presentation of archaeological and historical sites is not merely a matter of public education. It can be considered to be a part of a larger international effort to promote heritage conservation, in which both basic scholarly research and effective public interpretation have important roles to play.

I would like to share with you briefly the main points of our experience in the Ename 974 Project, which I believe, effectively illustrates these points. The archaeological work at the site of Ename, which brought us all together here, has developed over the past decade from a strictly scholarly research enterprise to the focus of a far broader program of conservation and public interpretation. And I think that it would be fair to say that the interest and enthusiast people of the modern village of Ename, of the nearby city of Oudenaarde, and of the people of the Province of East-Flanders and Belgium as a whole have been an invaluable help to us.

A few words of background: the first modern excavations of the site took place in the 1940s as a rescue effort, but beginning in 1982, a new team sponsored by the Flemish Heritage Institute began to bring the thousand years of Ename's history into clearer focus. Utilizing the most modern techniques of archaeological analysis, and drawing on the expertise of specialists in a wide range of disciplines, we have uncovered a site of unique importance. Represented in the material culture remains of a 10th-century fortress, of an 11th-18th century abbey, and the nearby village that has been continuously occupied for the last millennium is abundant evidence concerning the three main classes of the European world: those who fought, those who prayed, and those who worked.

I can say that our sixteen years of archaeological investigation at the site have been more than justified from a scholarly perspective. Even if the final excavation reports are still in the process of preparation, many scientific articles about the site have already been published, and a number of papers on the results of the Ename 974 Project have been presented at academic congresses and symposia. The site, together with the unique 10th-century Saint Laurentius church in the main square of the modern village, is regarded by many scholars as a unique combination of archaeological and architectural remains. But for the people of Ename, it is part of their own heritage.

From an early stage of the Ename 974 Project, we sought to involve the modern community in the recovery and preservation of these important medieval remains. We were fortunate to receive the wholehearted support of the local and provincial authorities, particularly Governor Herman Balthazar and Deputy Jean-Pierre Van Der Meiren, in making the project something more than a scholarly undertaking alone. Slowly, with the development of public education programs and with the involvement of local groups in our work, we recognized the human dimensions of the project. We came to recognize that we were not only scholars with a defined research agenda, but were also participants in the recovery of a living community's heritage. From that point on, I think it is fair to say, the character of our project shifted. Site interpretation was no longer based on scholarly 'facts and figures' but also on the recognition that we were involved in a cooperative enterprise with the people of Ename itself.

In recent years, we have worked steadily to expand and develop technologies of public interpretation. These include our TimeScope installations, providing virtual reality reconstruction of the uncovered remains at the excavation site and allowing visitors to follow the ongoing restoration work at the Saint Laurentius church. And perhaps the centerpiece of our work is the Ename Museum, with its interactive and multimedia exhibits, within walking distance of both the archaeological site and the Bos t'Ename nature reserve. What we have tried to do in all these efforts is to link the individual monuments and archaeological remains in the larger context of a living community. And we have not done this in the role of outsiders or 'experts', but as scholarly facilitators of community heritage, with considerable local governmental and popular support.

This idea has captured the imagination of the people of Ename and of all of Belgium to an extent that we could hardly have anticipated. For beyond the particular historical and cultural interest of the monuments of Ename, our work has encouraged many of the local people and visitors to Ename from other parts of Belgium and from other nations, to consider the value of memory, community, and heritage in a setting that is simultaneously local and universal. The archaeological site, the local church, the nearby woods, even the family photos and artifacts displayed in the Ename Museum, have a possible significance as evocative symbols for everyone's heritage.

How we can balance the local and the universal; how we can use modern technologies without compromising our scholarly standards are questions that we will no doubt address at length in this conference. But I can only suggest, on the basis of our experience at Ename, that public presentation is no longer, and should no longer be restricted to providing accurate facts and figures about a particular heritage site. Public presentation must be the focus of a renewed sense of community on both the local and the international level. It must be an activity in which visitors, local people, scholars, and professionals cooperate in preserving and making sense of our cultural patrimony.

The American preservationist Freeman Tilden put it best, I think, in his important book, *Interpreting Our Heritage*, which was published in 1957. "Through interpretation, understanding," he wrote. "Through understanding, appreciation. Through appreciation, protection." If we are to preserve our endangered heritage in Europe and indeed throughout the rest of the world, and communicate its value to future generations, we must remember that the past is a part of the present. And we must make every effort to involve living communities on every level from local to global in the interpretation, presentation, and preservation of our material heritage.

SELECTED CONFERENCE PAPERS

HERITAGE ETHICS

David Lowenthal
University College London, UK

The global growth of heritage involvement is patent. Treasured relics and traces, memorials become more and more vital for our present identity and sense of community. Heritage so conceived is ever more hotly contested. Seen as a limited and dwindling resource, it is felt to require careful and costly protection and conservation. Hence heritage management and presentation become ever more problematic.[1]

Concern for the safety and sanctity of heritage is evident in the proliferation of ethical guidelines. Every coterie of heritage professionals – conservators and restorers, archaeologists, historians, architects, art historians, museum curators – is today inundated by codes of ethical behavior, whether embedded in operational sanctions or in hortatory guidelines. To judge from such *obiter dicta*, the world's heritage is cherished by a corps of angels, while heritage malefactors are accursed, and looting, faking, hoarding, and profiteering are universally deplored.[2]
Typical of such exhortations are injunctions enjoined by the Society for American Archaeology:

> *The use of the archaeological record should be for the benefit of all people. As part of the important record of the human cultural past, archaeological records are not commodities to be exploited for personal enjoyment or profit. It is the responsibility of all archaeologists to work for the long-term preservation and protection of the archaeological record. [To this end], archaeologists should abstain from any activity that enhances the commercial value of archaeological objects not curated in public institutions.*

Commercialization is defined as "not just selling but appraising, authenticating, dating, and validating." Moreover, archaeologists much prescribe these ethics to

[1] This is a central theme of my book (Lowenthal 1996), on which this essay in various ways expands.
[2] Such guidelines are surveyed in "Ethical Considerations and Cultural Property" 1998 and in Niec 1998.

others; "in lieu of legal remedies, archaeological scholars must appeal to the better nature of developers and dealers in artifacts."[3]

However worthy, these strictures are in reality wholly ineffectual. Preaching largely to the converted, they are backed up by no punitive sanctions. And their very salience may do more harm than good; for in conveying an impression of ethical piety overcoming selfish greed, they conceal enduring corrosive realities whose destructive force is little if at all abated.

These realities are simply stated. Heritage is by its very nature conflictual: each claimant denies or impinges on the claims to possession, to priority, to authenticity, of other claimants. Such conflicts are exacerbated by gross disparities of wealth, of power, of competence, of grievance, and of participatory ability that set nation against nation, majority against minority, ethnic and religious faction against faction. Given these rivalries, appeals to share and husband heritage in concert fall on largely deaf ears. Just as each chauvinist entity thinks its own heritage uniquely superior, so does each exalt its own mode of stewardship.

Heritage protocols are seldom uniformly applied even within a given culture and epoch. Efforts to conserve and display vary with all manner of circumstance. National and tribal iconoclasts ever transgress global conventions that prohibit the looting and sacking of other peoples' heritage. Legal sanctions are all in vain. Heritage is destroyed and uprooted, as with the Nazi demotion of Old Warsaw, the burning of Sarajevo's library, the bombing of Mostar's bridge, precisely *because* such acts dispirit enemies and erode their will.

Increasing validation of cultural difference makes a wider sense of community harder to achieve, and often meaninglessly vague. Recent reviews of standards of authenticity for inscribing architectural and other heritage sites show the futility of applying universal standards in rapidly changing multicultural contexts. The endurance of material fabric had seemed a workable criterion for authenticity for the Venice Charter in the 1960s, most of whose signatories were from lands that built primarily in stone and brick. By the 1990s the diffusion of heritage interest made this criterion of dubious merit for many. Those whose built heritage was primarily of wood stressed continuity of form rather than of materials; still others treasured the survival of skills and memories above any material remnants. The global guidelines at length agreed that it was up to each state and people to determine what was 'authentic' in its own heritage. Moreover, each new generation might justifiably elect to alter such decisions. Cultural

[3] Lynott & Wylie 1995, 28, 38-39, 58.

relativism so exalted leaves little practical common ground.

Mutually acceptable European-wide heritage is hardly less problematic. States ill equipped to care for huge and highly appreciated legacies from the past have little in common with heritage-poor but otherwise well-off countries. Such disparities necessarily engender differences about what and how to save, to safeguard, and to display. Chauvinist modes of interpretation remain the rule; a mutually understood common European past bore fruit only in one volume, a *Histoire de l'Europe* "écrits par 12 historiens européens."[4] And despite the participation of an English educator, this has not appeared in English, on the ground, British spokesmen say, that rewriting the past with a European slant is not history but propaganda. English historians, it is implied, would never do such a thing – history there is entirely objective.

So far, efforts to narrate a European history acceptable alike to French and German, Belgian and Dutch, let alone Irish and Polish, have had small success. To promote European-wide heritage, 150 delegates from a score of nations met in 1994 under the aegis of the Council of Europe and trawled in vain for some epoch not poisoned by acrimony until it reached back to the Bronze Age.[5] All that may find in common today is the impulse to repent ancestral iniquities. From German amends for the Holocaust we have moved to British apologies for Irish famine, American regrets for African slavery, global mea culpas for ever remoter pasts. In Lebanon, Christian penitents from the New World ask pardon for the Crusades, a contrition said to be under serious consideration by the Vatican. Heritage regrets are attributed even to a Creator too productive for His own good: on the eighth day, it is said, God viewed aghast all He had made, and gave the world moth and rust.

Yet there is some utility in striving to find common heritage ground, in seeking to impose mutually acceptable codes of heritage practice. One benefit is to make people more aware of the problems addressed. Another is to habituate ourselves to viewing divergent, even discordant, heritages of others in a positive light. Forcing our minds into unaccustomed grooves, ways of thinking unfamiliar to us but enjoined by other cultures, is conducive to genuine cosmopolitanism. Becoming aware of disparate aims, resources, and constraints, we view the heritage of others with more empathetic tolerance, and thereby enrich our own. Heritage priorities deemed imperative become more manageable when viewed in comparative terms. And comparison with others alerts us to the malleable,

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4 Delouche 1992.
5 Lowenthal 1995.

contingent nature of our own national heritage. We come to see that not all of us are able or willing to be equally involved or concerned, and hence to accept that not all of it can or should be salvaged, attested, curated and exalted.

Two related ongoing conceptual shifts likewise help to make heritage both more workable and more widely acceptable. One is the growing awareness that conservation cannot be forever, and a concomitant readiness to accept that heritage is time-bound and evanescent. Traditional Western goals of eternity, stability and permanence are nowadays discarded as unreachable. Cultural guardians, who once hoped to husband heritage for all time, like ecologists who envisaged a timeless, changeless nature, are learning to accept that things are in perpetual flux. Just as the stable climax of nature conservers has given way to fragile and temporary equilibria punctuated by episodic perturbations, so are cultural stewards now conscious that no human creation endures forever, that the decay of site and city, artifact and work of art, can only be retarded, never prevented. Chemical decomposition, physical disintegration, shifting environmental ambience, perceptual awareness, and symbolic import ceaselessly alter all heritage.

Cultural stewards long held that nothing should be done that could not be undone, that every valued artifact, structure, and site ought to be capable of being to be returned to its 'original' state. "Every method must be reversible," insisted conservators.[6] And connoisseurs time and again inveighed against irreversible damage to material and quality done in the name of conservation: John Ruskin and William Morris vis-à-vis church restoration, defenders of varnish on Old Master paintings, recent anguish over the fabric of the Sistine Chapel and of Pompeii. Like those who sought to protect divine nature, stewards of sacred cultural relics embargoed any impact unless sure it could be reversed.

This stance, like Mircea Eliade's myth of the eternal return, is now seen to be quixotically unrealistic. The erosions and accretions of memory and history implacably alter every physical object no less than they do each sentient being.[7] All acts, individual and collective, are biologically and historically irreversible. However pivotal or prosaic, heroic or horrific, no deeds can be undone. In most of our affairs, we are resigned to seeing life as a one-way stream. W. W. Jacob's cautionary tale "The Monkey's Paw"[8] limns the futility of yearning, like

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[6] Keck 1983.
[7] Cramer 1994.
[8] Jacobs 1902.
[9] Sease 1998, 104, 113; Talley 1996, 169; Petzet 1991.

Shakespeare's Richard II, to "call back yesterday, bid time return." Within recent decades, practitioners aware that "no treatment is fully reversible have begun to question the whole idea of reversibility."[9] Only diehard conservers continue to dram that nature fully restored, art impeccably preserved, might rest exempt from time's arrow.

How necessary, and how hard, it is to come to terms with heritage evanescence emerged at a March 1998 Getty Center conference, "Mortality or Immortality? The Legacy of 20th-Century Art." Some realized that "nothing is sacred, little is safe," reiterated Etienne Gilson's dictum that all paintings perish and found "no alternative to our acceptance of mortality." Yet others noted that "conservation practice still seeks to preserve all vestiges of original material," and that "collective belief in the sense of permanence" left museums curators dismayed about accessing art not meant to last forever." To know that everything is changing, is in some way dying," as Ann Temkin put it, is not yet widely welcomed. But that insight can help us when we are also aware that heritage means "we go on creating."[10] Marks of age and decay integral to every object need to be seen not just as losses but as gains. Esteeming evanescence can make us wiser and more caring stewards.[11]

In shedding claims to omniscience and omnipotence, in admitting their stewardship can be only partial and temporary, heritage managers gain both self-confidence and public credence. It is not a sign of despair but a mark of maturity to realize that we hand down not some eternal stock of artifacts and sites, but rather an ever-changing array of evanescent relics. Our successors, too, or better served by inheriting from us not a bundle of canonical artifacts but memories of traditional creative skills, institutions in good working order, and habits of resilience in coping with the uncertain vicissitudes of existence.

A second conceptual transformation is the recognition that no heritage derives from one pure source, and a concomitant willingness to value heritage of patently mixed multiple origin and mixed character. Heritage is commonly esteemed as our own, not anyone else's, and not like anyone else's. Lauding our own unique legacy, we strive to protect it from contaminants. Oldtimers traditionally define themselves by opposition to outlandish newcomers; against alien incursion the old guard seeks to congeal ancestral purity. This is a delusion.

[10] Helen Escobedo, James Coddington, Thomas M. Messer, David A. Scott *et al.* and Ann Temkin, quoted in *Conservation* 1998, 6, 13, 15.
[11] Lowenthal 1994.
[12] Levine 1996, 140, 151-153.

Heritage is always mongrel and amalgamated, and all the better for being so.

Heritage stewards exclude outsiders at their peril and to their own detriment. All cultures are motley compages, ever amalgamating reworked fragments of manifold antecedents. None, mainstream or minority, is immune from such infection. The distinctive African-American musical style embodies biblical and plantation antecedents, European symphonic, white mountain and church music.[12]

The West Indian Nobel laureate Derek Walcott lauds the process of bricolage that commingled Caribbean legacies once derided as broken. "Break a vase, and the love that reassembles the fragments is stronger than that love which took its symmetry for granted when it was whole. It is such a love that reassembles our African and Asiatic fragments, the cracked heirloom whose restoration shows its white scars. This shipwreck of fragments, these echoes, these shards of a huge tribal vocabulary, these partially remembered customs" are living traditions in the polyglot babel of Afro-Indo-American cities like Port of Spain.[13]

Exclusivity is crucial to identity, and to cherished difference. We must cosset our own heritage or we cease to be ourselves. But we can never keep ourselves to ourselves, hold the outside world at bay. No heritage was ever purely native or wholly endemic; today's are utterly scrambled. Purity is a chimera; we are all Creoles. Heritage health lies in accepting the medley as a creative advance over what purists despise.

The increasing rejection of essentialist dogma, at least in areas not torn by ethnic strife, is a concomitant advance for heritage management. Essentialism has been a potent and destructive delusion. Each group claims its 'own' history and heritage; each insists that only a Fleming can know what it was to have been Flemish, only a Scot to have been Scottish, only a woman to have been female. Such mystiques of ancestry determine how legacies are divided, whose histories are privileged, how and to whom heritage is displayed. This may seem politic, but it is all wrong – wrong because we are all mixed, as I have just noted, wrong because collective ancestral pasts cannot actually be possessed. To say "My ancestors, the Gauls" or "My forebears, the Athenians" or "My people, the Romans," makes a statement not about them but about us; these Gauls, Athenians, Romans are not actual folk but emblems of everyone's ancestry.

Ourselves heirs of commingled legacies, we gain more from attachment

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[13] Walcott 1993, 9.

to many pasts than from exclusive devotion to our 'own', assuming we could indeed decide which past was truly just ours. Not only is no past exclusively ours, no past people are enough like ourselves to justify essentialist claims to a particular history. All pasts are foreign: my grandparents's world feels in many ways more remote than a contemporary village in Bali or Bengal. Rather than exclusively tribal secrets, our cosmopolite ancestors have things to say to all our cosmopolite selves, never just to some of us.

Moreover, demands for exclusive right to possession, interpretation, and sustenance are fatal to heritage stewardship. Fractious claimants not merely debase the value but threaten the survival of heritage that is never theirs alone. UNESCO's World Heritage listings suggest the growing importance of outside appreciation, outside concern, outside aid in saving endangered national legacies from banditry, anarchy, and heedless development.

To be sure, global awareness also burdens the fabric and imperils the ambience of heritage. But without heritage tourism many sites and artifacts would be less able to fend off development and other pressures. If global renown is inevitable, it must be made desirable. A legacy locked away as mine alone, for fear that others will steal or desecrate or copy it, is tarnished by custodial aloofness. Custodial pride can burnish it, where outsiders are taught to respect what is local about the legacy. Visitors to Ayers Rock, Australia, Uluru National Park, are asked to refrain from climbing, not forbidden, what aborigines hold sacred; few transgress. Heritage management gains by persuasive inclusion.

Heritage is best stewarded by outsiders in tandem with natives, and sharing heritage often serves to strengthen it. The Methodist chapel where Margaret Thatcher's father once preached was dismantled and shipped from her Leicestershire birthplace to Kansas. At first aghast, English heritage authorities strove to prevent the loss of a potential national icon. But the loss was trivial, the gain great. In England the abandoned chapel was moldering; Kansans restored it to religious use and living eloquence. A stained glass window above the vestibule carries its founder's verse commemorating his daughter:

For thou must share if thou wouldst keep
That good thing from above
Ceasing to share we cease to have
Such is the law of love.[14]

[14] Bone 1996.

[15] Rephrased from Lowenthal 1996, 228.

The legend makes good statecraft for sharing.

In these diverse ways, collective dimensions of heritage, international, European or whatever, can be enhanced without threatening national interests or local needs and sensibilities. This can be achieved especially by stimulating a greater awareness of the cosmopolite nature of all existing heritage. The local becomes more and more global by expanding awareness of common cultural heritage, by perpetual interaction among peoples and their ideas. Among Europeans and their descendants everywhere, for example, the legacy of classical Greece and Rome is a rich component of identity, not simply from its remaining husbanded traces and relics in museum collections, but above all from its countless emulations in art and architectural, and from its revivification is every realm of intellect from philosophy to theatre.

As heritage increasingly engenders global appreciation, consideration of and presentation to outsiders becomes ever more vital. Not only is outside aid (through tourist revenues, international expertise, global legal frameworks) invaluable; outside stimulus helps to maintain local and national pride. "I hope you British get it right," said a recent Swedish visitor to Stonehenge, over efforts to revitalize the presentation of that World Heritage Site. "After all, you know, you are only its custodians; Stonehenge belongs to all of us."[15]

To be sure, cosmopolite intrusion has its costs – wear and tear on physical fabric, on local patience, on national exclusivity; global sameness reduces or trivializes uniqueness or hides what may seem difficult or disagreeable. Managers concerned for the health of the heritage they steward must first assure themselves, and then persuade others, that the benefits of collaboration outweigh its perils and demerits. For ultimately heritage must become a matter of both mutual *and* exclusive interest. What we refuse to share risks being locked away inaccessible to and neglected by even ourselves.

References cited

BONE J. 1996: Final Resting Place, *The Times* (London) *Magazine* 26 October, 16-18.
CONSERVATION 1998: *Getty Conservation Center Newsletter* 32, 2.
CRAMER F. 1994: Durability and Change: A Biochemist's View. In: KRUMBEIN, W. E. *et al.* (eds.), *Durability and Change: The Science, Responsibility, and Cost of Sustaining Cultural Heritage,* New York, 19-25.
DELOUCHE P. (ed.) 1992: *Histoire de l'Europe*, Paris.
"ETHICAL CONSIDERATIONS AND CULTURAL PROPERTY" 1998: special issue of

the *International Journal of Cultural Property* 7,1.

JACOBS W. W. 1902: In: Jacobs W. W. 1994: *The Monkey's Paw and Other Stories*, London, 139-153.

KECK C. 1983: Letter, *New York Review of Books* 24 June, 4.

LEVINE L. W. 1996: *The Opening of the American Mind: Canons, Culture, and History*, Boston.

LOWENTHAL D. 1994: The Value of Age and Decay. In: KRUMBEIN W. E. *et al.* (eds.), *Durability and Change: The Science, Responsibility, and Cost of Sustaining Cultural Heritage*, New York, 39-49.

LOWENTHAL D. 1995: Heritages for Europe, *International Journal of Cultural Property* 4, 377-381.

LOWENTHAL D. 1996: *The Heritage Crusade and the Spoils of History*, London.

LYNOTT M. J. & WYLIE A. (eds.) 1995: *Ethics in American Archaeology: The Challenges for the 1990s*, Washington, D.C.

NIEC H. (ed.) 1998: *Cultural Rights and Wrongs*, Paris and Leicester [UNESCO and Institute of Art and Law].

PETZET M. 1991: Reversibility - Preservation's Fig Leaf? In: ICOMOS, Journals of the German National Committee VIII, *Reversibilität at: Das Feigenblatt in der Denkmalpflege,* Munich, 81-85.

SEASE C. 1998: Code of Ethics for Conservation, *International Journal of Cultural Property* 7, 98-115.

TALLEY M. K. Jr. 1996: The Original Intent of the Artist. In: STANLEY PRICE N., *et al.* (eds.), *Historical and Philosophical Issues in the Conservation of Cultural Heritage*, Los Angeles, 162-175.

WALCOTT D. 1993: *The Antilles: Fragments of Epic Memory*, London.

NEW APPROACHES TO HERITAGE PRESENTATION AND INTERPRETATION OF ARCHAEOLOGICAL SITES

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This paper is divided into two parts. Firstly, it looks at the wider context and framework in which site interpretation often has to take place in England, and secondly, it looks at the way in which English Heritage have tried to present a current excavation project. As I work for English Heritage I have drawn my these experiences from my employment: however the opinions expressed here are my own. I hope that this paper stimulates thought and discussion rather than providing solutions.

Background

In thinking about this paper and taking the time to consider the wider picture, I have become increasingly aware of how our ability to present sites to the public is constrained by external factors, at least in England. I have had a long association with the Stonehenge site, and have been responsible for its archaeology for the past four years. This includes ensuring that the 'archaeological content' in the physical presentation and interpretation of the monument, such as guidebooks, is up to date and correct.

It was in this role that I was made aware of the external factors that colour and constrain our ability to interpret and present a site. I had naively thought that all I, as an archaeologist, had to do was to look after Stonehenge's archaeological story and use various media to present the latest archaeological interpretation for the site. It is necessary to note that about this time, in late 1995, English Heritage had just published the first and only comprehensive account[1] of the excavations undertaken on the site this century, which were largely responsible for shaping the presentation of the monument that we see today. This monograph, some 500 pages long, contained not only the excavated evidence for the constructional sequence of the monument but also a whole new suite of dates which changed the site's

[1] Cleal, Walker & Montague 1995.

chronology and, most significantly, placed the beginning of the stone phase firmly in the later Neolithic, considerably earlier than had hitherto been understood.

Armed with this evidence I attempted to revise the then current interpretation of the site, in the form of the fixed information boards and of the published guides. This standard interpretation had been largely based upon the popular works of Professor Richard Atkinson. It was at this point that I had my eyes opened to other factors that limited and constrained my ability to present the new site information. These marketing factors were my first experience of the economic power of tourism. I was very firmly told that while Stonehenge was a major draw for tourists, it was targeted at those who stayed for one hour maximum and was therefore marketed as such. In effect Stonehenge was treated as a site en route to and from another, more important destination rather than as a destination in its own right.

This issue arose during our discussions of the "Sound Alive" audio guides for Stonehenge's visitors. These are hand-held units that contain information held on a computer chip, accessed by a numeric keypad. It is a very good system and one to be recommended. We, the archaeological side, if you like, were not allowed to tell the archaeological story in the way in which we wanted. Rather, we were given a very tight brief which placed at least equal emphasis on various myths and misconceptions that have grown up over the last century about Stonehenge. All of this was to be contained within 25 minutes of recorded speech. If you add in the time taken walking around the monument, this led to a total time of about 40 minutes spent viewing the stones themselves. There was little or no opportunity to set Stonehenge into its context and landscape[2] of which it is an integral part, let alone explain the complex changes that had taken place throughout the 1,500 years of its use in known human prehistory and history. This led to a heated internal debate with the outcome of an uneasy compromise, where the more complex archaeological interpretation of the surrounding monuments was separated from the myths and legends, and two different lengths of tour were provided, one which fitted the original brief of 25 minutes and another which lasts about 45 minutes and asks the listener to turn their backs to Stonehenge and look outwards. Luckily the audio guides had the technology to permit this to happen.

There were similar constraints placed upon the revision of the guidebook to take account of the revised dating and interpretation. Here the brief was simple, requiring a straightforward narrative history, including the gory bits, i.e.

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[2] The Stonehenge World Heritage Site is some 26sq kms in area.

the cremations and burials. It is worth contrasting this with the content of the teachers' handbook[3] that was being produced at the same time. This gives teachers information and sample exercises necessary to enable students to question the different perceptions and values placed upon Stonehenge. It also indicates that the process of archaeology is one of evolution of interpretation based upon the available data, rather than a closed narrative story.

This was a salutary lesson for me, and raised a number of issues that cannot be pursued here. However, prime among these must be the general question about the way in which we are presenting our site data. We, at least in England, seem to be able to make an intrinsically interesting subject boring by drowning it in data rather than interpretation. It was also apparent that we had been presented with a lack of regard for the recently revised archaeological interpretation in the face of an established story. Maybe I'm just being over-sceptical and cynical, but it was a very powerful demonstration of inertia, or lack thereof, and of the difficulties in trying to change established perceptions.

Until recently I had thought that my concerns were particular to the circumstances of Stonehenge or, more correctly, major English monuments because similar parallels can be drawn elsewhere, such as at Hadrian's Wall.

Illustration 1: Stonehenge from the South East. Copyright: English Heritage/Dave Batchelor.

[3] Anderson, Planel & Stone 1996.

However, other factors have made me reconsider this viewpoint and realise the universal power and influence of tourism and marketing. The first was a trip to Korea where we visited a number of prehistoric sites that were being proposed for inscription on the World Heritage List. Here a main driving force to achieve this was the perceived status engendered by WHS listing and, to be blunt, the marketing opportunities realised by the use of the WHS logo. The second factor was a project undertaken by my son, for which he had to get hold of a number of holiday brochures for exotic locations. Reading the descriptions of these mainstream holiday packages, not specialist tours, brought home to me how heritage is being packaged and marketed all over the world. It was not just the world-wide spread of the destinations or the exceedingly short time spent at a location (half a day at the Pyramids sticks in my memory), but the fact that these were being marketed alongside beach holidays in Thailand and visits to theme parks!

We must be aware not only of the economic, but also the political and social, framework within which interpretation and presentation of the heritage must take place. My personal feeling is that there is still some way to go in getting the integrity of the interpretation of the site on a par with these other considerations.

Whitby Abbey

I want to discuss a project that I have been involved in at Whitby Abbey, which is in Yorkshire, on the north-east coast of England. The actual site and its archaeology are not the primary focus of what I want say, more important is the nature of the project and aims we set ourselves at the outset.

English Heritage, taking its cue from central government, has made public access and enjoyment a major corporate goal for the immediate and foreseeable future. For the Archaeology and Survey Division at English Heritage this translates into both physical, intellectual, direct and remote access for the general public and the archaeological community. To this end we are committed to making our archaeological work as accessible as possible. This includes encouraging visitors at our excavation and fieldwork projects as well as using the Internet to carry our findings information to remote enquirers. The latter is increasingly important, as the Internet is fast becoming the most cost-effective, immediate and widespread medium by which to disseminate information and opinion. English Heritage has an established www presence, recently revamped. This site gives much information about the work of EH and holds a wide range of academic data such as the national database of geophysical surveys.[4] It is also the medium by which EH policy documents are distributed, such as Management of Archaeological Projects (MAP2),[5] the standard reference document for the planning and execution of archaeological projects.

With the Whitby project we wished to develop the use of the English Heritage website further by using it to hold project data. The site had long been used for 'news type' stories breaking from within EH, such as new discoveries and forthcoming publications, but it had not been used to publicise projects by disseminating such items as project designs and specialist reports as well as updated site reports. We were not alone in looking towards this technology and were aware of an increasing number of sites in the UK that were attempting similar things.

However, for Whitby we were trying to build a project that used modern technology to assist in opening up access. This was to be approached in a multi-layered way with public presentation as fully integrated within the general workings of the project as possible. We did not want to find ourselves with a site where public presentation, in any of its forms, was seen as a separate activity or the responsibility of someone else. We therefore designed a project with elements of presentation present throughout, but not separate. Presentation was seen as one of the core aims of the project, on a par with the project's academic aims, and similarly interwoven.

At this point it is necessary to set the site into its environmental and demographic context. Whitby is a small town, physically cut off from the rest of Yorkshire by a tract of moorland, the North Yorkshire Moors, and is therefore comparatively inaccessible, at least in British terms. The town had at its historic core shipping, both building and owning, and the fishing industry, both of which have suffered a large decline over the last 50 years. The town is becoming increasingly reliant upon the seasonal tourist trade, although it has long been a holiday destination for those from the industrial areas of north-eastern England, but is in general a not particularly prosperous town. The site of the excavation, while adjacent to the medieval abbey precinct, is on the edge of the urban fringe, in an area that until a couple of years ago was still farmed. This aspect is important, as there is a vandalism problem with this area with anything unsecured a potential target. It is also an area that is completely empty of people or traffic overnight. Thus the excavation and any of its ancillary works was a potential

[4] http://www.english-heritage.org.uk
[5] http://www.eng-her.gov.uk/guidance/map2/index.htm

Illustration 2: Whitbey Abbey from the East End. Copyright: English Heritage/Dave Batchelor.

target for vandalism, especially overnight. The medieval abbey sits prominently on the top of a sea cliff overlooking the River Esk and overlies the site of earlier Anglo-Saxon occupation, including an earlier monastery. We therefore had a site that was exposed, in both security and physical terms.

The Whitby Abbey Headland Project[6] received English Heritage funding for four years of fieldwork, 1999-2002, and the annual season runs from late May to August, a period of about 12 weeks each year. Therefore, we were aiming to interpret an active archaeological site which we knew very little about before we started, although the Abbey at Whitby is known from literary sources as early as the eighth century. The project was transient and therefore did not warrant expenditure on major infrastructure, thus precluding the installation of fixed information points, for example.

We set out with the aim of presenting the site to visitors and also by use of the Internet to visitors at remote locations. The on-site provision included standard items such as walkways and viewing platforms, with interpretative boards telling about the progress of the excavation and explaining the processes of archaeological excavation. This was supplemented by site interpreters who

[6] Batchelor *et al*. 1999.

conducted set tours and answered general questions arising from the visiting public. We actively encouraged as many of the staff that wished to do this as possible, as we found that this opportunity was very much appreciated by the staff. We deliberately put as many of the archaeological processes on display, including the usual pottery washing, sieving and flotation and survey and drawing. All of these activities were supported by appropriate explanatory information, including leaflets and fixed boards. We found that there was a tremendous fascination with what was actually being found but also in the processes leading to its uncovering and understanding.

All of this was underpinned by a comprehensive education programme in which all the local schools took part. This was jointly developed with our Education Service and encompassed many of the subjects of the National Curriculum for England and Wales, not just history and archaeology, and covered the age range from 8 to 12 years initially. This programme obviously shared many resources with the interpretation and presentation to the general visiting public.

In line with our wish to see the presentation and interpretation embedded within the whole project we ensured that our on-site procedures for recording were as compatible as possible to our wish to use the Internet for remote dissemination.[7] This was problematical to achieve due to the technical difficulties encountered at this site. Not only is Whitby itself physically remote but it is separated from permanent archaeological facilities or personnel: we did not have a local museum or conservator to call upon daily. Thus the project team had to be as self-reliant as possible on site and then use remote/ telephone/ email support for the rest.

We set ourselves the objective of producing regular updates on the progress of the site to be posted both on the website and also physically at locations such as the libraries and Tourist Information Centres in and around Whitby. Unlike others we felt we had neither the expertise nor physical support (e.g. lack of ISDN lines) to enable us to post daily updates on the website. We designed a format with the minimum of translation between the electronic and printed page, equating in length to two sides of paper. We would have liked to have had complete compatibility but this proved impossible due to external factors. With the exception of the actual site context sheets the entire site recording was done in a digital format. Thus all of the surveying was by self-tracking EDM linked to a data logger giving a real-time display in a version of AutoCAD. Similarly the photography was undertaken by using digital cameras, both still and video, although this was supplemented with

[7] http://www.eng-her.gov.uk/projects/whitby/wahpsae/

film.

Thus in terms of preparing the updates all that was required was the writing of the text as the drawings and photographs, or video in the case of the website, could be dropped in easily. The text was written on site by those directly involved, designed to cover two sides of A4 with the drawings and images included. For technical and operational reasons the layout work for the printed and website pages was done away from Whitby, but it was possible to get this aspect completed well within 48 hours.

Of the processes involved we had the most trouble at the outset with the content of the text. It took quite a lot of coaxing to get the staff to write down their interpretations. We experienced an underlying reticence to committing oneself to print, although the same staff would happily commit themselves when speaking to groups of visitors. Anyway, by the end it was much better and more positive.

Conclusions

What did we achieve with all of this effort? If the ad hoc feedback is anything to go by, the site presentation, in all its guises, was very well received. We are still awaiting the results of more formal surveys and we also have yet to have formal feedback from the schools. More tangibly, we can say that the numbers visiting the site increased as did on-site shop revenues. There was a particularly significance increase in visitor numbers during the accounting period in which the excavation fell. This was doubly satisfying as this was against a national and regional trend of an overall decrease in numbers over this period, probably due to the poor weather that year. There was also a significant number of visitors who returned more than once, either to keep up with progress or as a result of pieces in the local press (our website write-ups also formed the basis of press releases). Similarly for the website we received generally favourable comments by those bothered to leave any, but we have not solicited any formal feedback yet. We placed counters on some of the website pages for Whitby and check the number of visits received by these. Once people had found the website, towards the end of the season a couple of the pages were making it into the top ten pages being visited for the Archaeology Division pages, which numbered several hundred every week.

Perhaps more importantly, but far less easily measured, was the effect upon Whitby itself. The excavation engendered a lot of local interest, even among those who had never been there themselves the site, and the diggers did seem to be taken to heart by the people there. This is no less important than purely academic assessment of the site's significance.

To conclude, we intend to build upon this base in future years and develop both the on-site and Internet interpretative displays. The schools education programme will be expanded to encompass many more students, and we are planning to cater for between 2,500 and 3,000, enabling the geographic area from which the schools come to be increased. In addition there will be a sub-project focussing on the history and archaeology of Whitby Abbey that will link schools with a high percentage of students with a non-English background.

References cited

ANDERSON C., PLANEL P. & STONE P. 1996: *A Teacher's Handbook to Stonehenge*, London.

BATCHELOR D. *et al.* 1996: *Whitby Abbey Headland Project - Southern Anglian Enclosure Project Proposal*, London (unpublished report).

CLEAL R., WALKER K. & MONTAGUE R. 1995: *Stonehenge in its Landscape. Twentieth Century Excavations*, London.

ARCHAEOLOGY AND THE PUBLIC IN THE 21ST CENTURY: THE VIEW FROM ISRAEL

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As professional archaeological research enters its second century, new questions and issues have arisen regarding the role of archaeology and its relevancy to contemporary society. Following decades of extensive archaeological excavation and investigation in Israel during the 1970s through 1990s, it is especially timely to examine the possible future directions of archaeology. Because of the sheer volume of archaeological activity conducted there, its high international profile, and its value as an example of both positive and negative trends, Israel is an ideal case study. This recent 'golden age' of archaeological investigation in Israel can be analyzed through four different, and sometimes overlapping, categories of archaeological activity: salvage or rescue excavations; research-based excavations; economically-driven excavations, that attempted to alleviate social problems or encourage economic and touristic development; and archaeological excavations with a political or nationalistic agenda.

However, an additional type of archaeological work should also be added to this list. As we enter the more economically unstable and politically turbulent 21st century, the archaeologist's responsibilities can no longer be solely limited to the traditional role of competent excavator and recorder of evidence. Far too often in the past the original purpose for excavating a site has been of dubious academic, political, economic, or social value. To the four basic types of archaeology that have characterized archaeological work in Israel for the past 30 years, I would like to propose an additional type of archaeology that I will term 'public archaeology'.

This fifth category of 'public archaeology' addresses new issues arising during the last decade of the 20th century. I define it as the interface between archaeology and the public resulting in archaeology's integration into the public sphere on all levels: protection, conservation, development, interpretation, presentation, and education. It includes individual, community, national, and global dimensions. Gone are the days when the archaeologist existed blissfully in his or her excavation or research 'ivory tower', oblivious to the public dimensions and impact of their work at ancient sites and the local communities. Although this may seem to be an obvious statement, it is still far more common today that the archaeologist is not involved, either through ignorance, choice, or exclusion, in the fate of the site once the excavations have ended.[1]

The archaeologist of the 21st century will be held accountable not only for the proper excavation of a site and its scientific publication, but also for its post-excavation fate. This will entail the excavator's active involvement and engagement in a site's subsequent protection (reburial, consolidation, or conservation) and/or its interpretation and presentation to the public, and, when possible or relevant, for encouraging community and public involvement in the protection and/or interpretation of the revealed remains. Awareness and the realization that the archaeologist must take an increasingly proactive and responsible role for these issues should be an integral part of the archaeologist's duties and all formal education and training programs. Rather than provide a general overview of the recent treatment of archaeological sites and their interpretation,[2] I raise issues concerning the archaeologists' need for an awareness of public responsibility that will be part of archaeological research of the 21st century. In my discussion, I bring several examples, mainly from Israel where I have worked as an archaeologist for more than twenty years, to illustrate these points.

Protection and Conservation of the Archaeological Site

Conservation of archaeological sites has been a main focus of concern in academic and international circles for several decades. Countless conferences and international courses, numerous monographs, and entire journals are now devoted to this crucial aspect of archaeological investigation. Although much work still needs to be done to train qualified specialists and encourage archaeologists to place conservation and protection as a higher priority, the situation has improved over the past decade.

In Israel, all archaeological sites fall under the jurisdiction of the Israel Antiquities Authority (IAA).[3] Any activity at an ancient site, whether it is survey, excavation, conservation, protection, or development, must receive

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1 For a recent overview of the state of public archaeology, see Jameson 1997.
2 See Killebrew 1999; Sivan 1997.
3 See Rabinovich 1994; http://www.israntique.org.il

the licensing or approval of the IAA. Although all surveys, excavations, and development activities at archaeological sites are closely regulated by the IAA, general protection and conservation are often difficult to enforce and, as a result, these post-excavation obligations of the excavation sponsor are often neglected. Unfortunately the worst offenders are usually the excavators themselves. This is especially prevalent at research excavations, where dig directors seldom devote more than token funding to the conservation and protection of the antiquities that they have excavated. Even less time and effort is invested in developing community awareness or interest in the site. This neglect can be clearly seen at nearly every site in Israel, particularly those that are not part of the national parks system or sites designated for public presentation. In recent years, several excavation areas at sites that were not designated for public presentation have been voluntarily back-filled, such as at Tel Miqne-Ekron, a Bronze and Iron Age site located in the southern coastal plain, and Tel Akko, another third to first millennium BC city situated north of Haifa. The IAA has been taking an increasingly proactive stand on this issue, and has begun to implement, particularly at national parks, back-filling of excavation areas at their own expense. In my opinion, archaeologists themselves must assume a more active financial and moral responsibility for conserving the excavated remains, either through back-filling, basic consolidation and conservation of exposed archaeological remains, or construction of shelters over especially significant structures. More stringent regulations regarding allocation of excavation budget funds for conservation, preferably as part of the enforced requirements for an excavation license, would also significantly improve implementation of conservation programs.

General site protection is a more difficult issue. Vandalism is widespread at many archaeological sites, especially at those sites that have not been developed for public presentation. Part of the problem is public education, which should be considered the role not only of public institutions such as the IAA, but also the responsibility of all practicing archaeologists. The unfortunate damage and destruction of archaeological sites, particularly unprotected sites in the politically volatile West Bank and Gaza Strip, are unfortunately being encouraged by the legality of selling antiquities in Israel, albeit under restricted conditions. Although most archaeologists agree that the ideal situation would be to ban antiquities sales, as is the case in most of the countries in the region, this is unlikely to occur in the near future due to the popularity of antiquities collecting both inside Israel and among tourists. In the past, archaeologists have even served as advisors to antiquities collectors, perpetuating the antiquities trade and bestowing legitimacy on unprovenanced artifacts. Part of the solution would be to strongly discourage and professionally condemn any cooperation between antiquities dealers or collectors and professional archaeologists. A second solution is the more active involvement of all archaeologists in public education programs, both in the schools and in public forums, designed to convey and inform students and the general population regarding the effects and implications of vandalism, illicit excavation activity, and the purchase of antiquities.

Lastly it is also important for governmental bodies – on a local, regional, or national level – to recognize that heritage sites will never be totally self sustaining. Government funding on various levels will always be required to properly protect and administer heritage, if it is to survive. This is best illustrated in Israel by the recent and ongoing financial crisis in the Israel Nature Reserve and National Parks Protection Authority. Ninety percent of funding for this authority comes from ticket sales. As a result of the political turmoil that began in September 2000, tourism has dropped sharply, seriously affecting the income and operating budget of this authority. The situation had become so critical that in June 2002 the Israel Nature Reserve and National Parks Protection Authority could not pay their staff and threatened to close all parks and nature reserves.[4] A temporary solution to this problem was found when the Israeli government approved short-term funding to enable payment of salaries. Protection and preservation of heritage will always be dependent on public and governmental subsidies for its long-term survival.

Presentation and Interpretation of Archaeological Sites

This aspect of the discipline of archaeology is just beginning to receive significant international attention and should be considered an essential element of an archaeologist's training. Even in the United States and England, where site interpretation has traditionally played a major part at many national monuments and sites, there has been a tendency to separate the more academic aspects of archaeological work from the more 'popular' expressions at public archaeological sites. The Ename Center for Public Archaeology and Heritage Presentation, one of the organizers of this conference, is the first international non-profit research organization devoted entirely to this topic. Increasingly, presentation and interpretation of archaeological sites have become integral parts of archaeological conferences and symposiums. The most noteworthy examples include the World

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[4] Rinat 2002.

Archaeological Congress (WAC), the European Association of Archaeologists (EAA), and the Society for American Archaeology (SAA).

In Israel, as in most nations in the world, archaeological and historical sites are major tourist attractions and economic resources due to their religious, nationalistic, or political significance. During times of political stability, site visitation at national park sites such as Masada, Caesarea, and Megiddo draw hundreds of thousands of foreign visitors annually. Other sites, such as Qasrin, Sepphoris, and Gamla attract significant internal tourism. Although comprising one of the major attractions and components of tourist income for the State of Israel, the presentation and interpretation of these sites are largely ad hoc, with only varying degrees of cooperation between the site archaeologists, architects, national park personnel, and tourism officials. No doubt part of the difficulty lies with the political nature of public funding allocation to archaeological site development, the lack of professional training for many of the site managers and employees, the narrowly focused archaeological curricula at most of the country's universities and, perhaps most importantly, the lack of a sense of accountability to the larger public on the part of archaeologists themselves. For the vast majority of archaeologists working in the field today in Israel, their responsibility to the site ends with the conclusion of excavations and the publication of a site report.

Archaeology of the 21st century will entail through necessity fewer, smaller, and less costly and destructive field excavations. It will employ greater numbers of archaeologists who will deal not only with the scientific techniques and methods of the excavation and site publication, but will increasingly be actively involved with the translation of the scientific results and their significance to a larger public. This has already begun at the Israel Nature Reserve and National Parks Protection Authority where a new position, referred to as 'site curator', has been developed and instituted at a number of the more frequently visited sites such as Sepphoris. The site curator is responsible for the development of on-site interpretive and educational programs at select national parks.

Recent approaches to site presentation have included total reconstruction (i.e. a domestic house at Qasrin (Ill. 1)), removal, relocation, and reconstruction of archaeologically significant structures (i.e. the four-room house and pillared store room at Hazor (Ill. 2)), and *anastylosis*, accompanied by intrusive partial reconstruction (e.g. at the classical and biblical Beth Shean (Ill. 3)).[5] However, during the past few years, less-intrusive multi-media interpretative programs

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[5] Killebrew 1999.

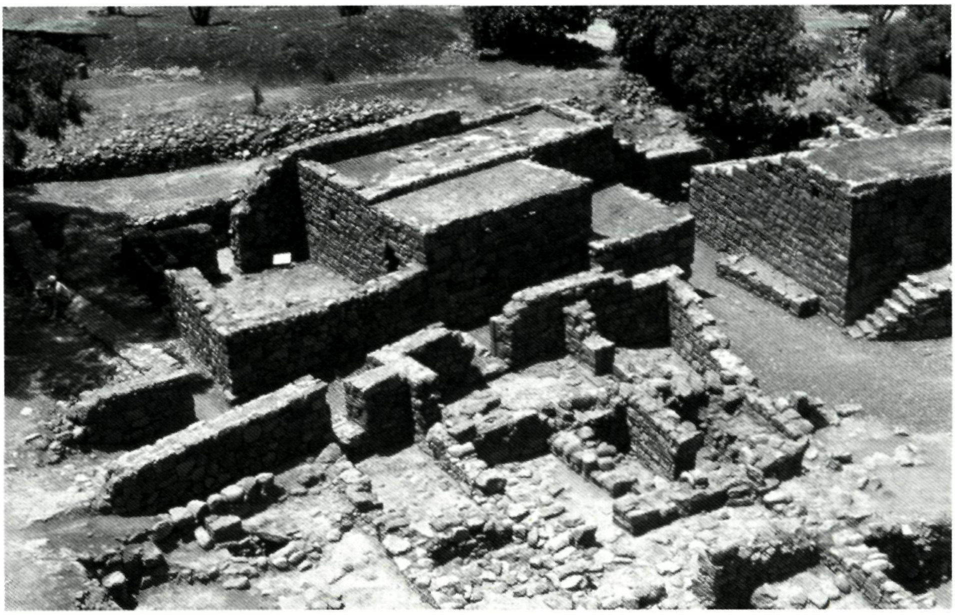

Illustration 1: Qasrin: Restored village house dating to the Byzantine period. Photographed by Z. Radovan.

Illustration 2: Tel Hazor: Relocated Iron Age pillared storeroom. Photographed by A. E. Killebrew.

have been implemented at sites such as Beth Alpha and Sepphoris. Hopefully site presentation of the 21st century will include the increased use of on-site less-intrusive high-tech virtual reality and multi-vocal interpretations. This approach has been successfully pioneered at the medieval site of Ename in East Flanders, Belgium (see article by Callebaut and Van der Donckt in this volume).

Illustration 3: Beth Shean: View of re-erected columns of colonnaded road and theater dating to the Byzantine period. Photographed by V. Raz-Romeo.

Community Outreach and Public Involvement

Attempts to integrate and involve local communities in archaeology are probably the most difficult and neglected aspect in the discipline. In Israel, the inclusion of volunteers in the excavation process, often from the local community, has been a common feature of many archaeological excavations for the past 30 years. However, community outreach and public involvement in the interpretation and development of an archaeological site are generally not part of the archaeological process. An exception to this exists at several archaeological projects that are implemented and funded due to political or nationalistic considerations. Here ideologically motivated local communities often influence the archaeological interpretation, message, and site development such as at the City of David in Jerusalem, the biblical site of Shiloh in the West Bank, and the Byzantine period Jewish synagogue site of Qasrin in the Golan Heights.[6]

[6] Killebrew 1999 and see references there regarding the political uses of archaeology, especially Silberman 1997.

At a number of archaeological sites that are today in an urban setting, community outreach can be especially effective and have an impact on its long-term protection and interpretation. Most conservation, presentation, and touristic development programs of archaeological are doomed to failure without the support of the local residents. Thus archaeologists should become actively involved in community-based outreach and education programs. In communities such as Akko, where residents of the Old City live in and on top of historic and archaeological remains, archaeology is often experienced as an impediment to basic living conditions and ultimate ownership of the property. This perception negatively impacts on basic attitudes and long-term protection of historic buildings and archaeological sites located within the city. A new program exploring the shared heritage of Israelis and Palestinians (funded by the U.S. State Department Wye River People-to-People program under the auspices of the University of Haifa and the Palestinian Association for Cultural Exchange) is now attempting to engage and include the local communities of Akko, Bethel (Beitin), and Gibeon (Al Jib), the latter two located in the West Bank, in archaeological endeavors and presentation programs through outreach and education programs (Ills. 4-6).[7]

Illustration 4: Gibeon (Al Jib, West Bank): Local villagers from Al Jib cleaning and restoring archaeological remains at Tel Gibeon. Photographed by A. Yahya.

[7] Balter 2002; Scham 2002.

Illustration 5: Gibeon (Al Jib, West Bank): View of Tel Gibeon Iron Age water system after community restoration project. Photographed by A. Yahya.

Illustration 6: Akko (Acre): Archaeologists from the IAA and University of Haifa discussing restoration and development plans for the Ottoman period "Saraya" with an American delegation. Photographed by V. Raz-Romeo.

Education

The role of archaeology in education is as multi-dimensional as the discipline of archaeology itself. It is a key element in all three spheres of archaeological responsibility discussed above. By education, I include all levels of education: primary and secondary education of children and youth, archaeology at the college or university level, and the less formal frameworks of archaeology educational programs for the public (including public lectures, informal adult education courses, and transmission of archaeological results and discoveries via the media). A number of archaeological societies and organizations, especially in the United States (e.g. Society for American Archaeology, Society for Historical Archaeology, Archaeological Institute of America, the American Schools of Oriental Research, and the National Parks Service), and England (e.g. English Heritage) have been at the forefront in this field, mainly on the primary through secondary school and public outreach levels. Many locally developed innovative archaeological programs have been implemented at a number of communities in the US, Europe, and elsewhere. The integration of archaeology in the school system and curricula can be accomplished either via the teaching of archaeology as a subject or through the integration of archaeologically based skills or concepts into other disciplines, such as math, art, history, or multi-cultural studies, just to mention a few possibilities.

In Israel, the Israel Antiquities Authority, to its credit, has been actively involved in the development of education programs, especially on the primary and secondary school levels. Numerous programs have also been introduced into local schools, due largely to the initiative and interest of individual teachers. However until now, professional archaeologists have seldom taken an active role in primary or high school educational programs or in curriculum building.

The need to provide training and education so that archaeologists can properly deal with the expanded needs of public archaeology is crucial. A number of universities have begun to introduce public archaeology studies into their curriculum including the heritage courses offered through the MA program in the Department of Archaeology at the University of Haifa in Israel (Ill. 7), the Center for Heritage Resources at the University of Maryland (affiliated with the Department of Anthropology), and heritage degree programs at the University of Newcastle and University College London. In order to significantly change the attitudes of archaeologists, it is essential to introduce courses and programs in public archaeology into university curricula.

Illustration 7: Timna: Presentation by site archaeologist (U. Avner) and conservator (R. Linn) on the interpretation and conservation of Timna to students enrolled in the University of Haifa Heritage Program. Photographed by V. Raz-Romeo.

Conclusions

Archaeology is beginning to undergo a significant transformation in many different parts of the world. The case of Israel is but one example of the need and desirability of including an ever-increasing public in the archaeological process. It is a positive development that will ultimately improve the relevancy and health of our discipline. Involvement of local communities in their past could ultimately lead to stronger local community ties and pride of stewardship of local archaeological or heritage sites. Public archaeology impacts not only the local level, but also a much broader global level (see D. Lowenthal's article in this volume). It is part of a much larger trend towards a concept of a shared stewardship of the past that is essential for its future protection. This is a challenge that we cannot ignore. As professionals we should welcome wider public participation in the interpretation, involvement and ownership of our past.

References cited

BALTER M. 19 July 2002: Archaeologists Keep Joint Project Rolling, *Science* 297, 315-316.

JAMESON J. H. Jr. 1997: Introduction: What This Book Is About. In: JAMESON J. H. Jr. (ed.), *Presenting Archaeology to the Public Digging for Truths*, London, 11-20.

KILLEBREW A. E. 1999: From Canaanites to Crusaders. The Presentation of Archaeological Sites in Israel, *Conservation and Management of Archaeological Sites* 3, 17-32.

RABINOVICH A. 1994: Inside the Israel Antiquities Authority, *Biblical Archaeology Review* 20(2), 40-45.

RINAT Z. 2002: National Parks and Nature Reserves to be Closed this Week, *Ha'aretz Newspaper*, June 23.

SCHAM S. 2002: Hope Amid the Carnage, *Archaeology* July/August, 18-19.

SILBERMAN N. A. 1997: Structuring the Past: Israelis, Palestinians and the Symbolic Authority of Archaeological Monuments. In: SILBERMAN N. A. & SMALL D. (eds.), *Archaeology of Israel: Constructing the Past, Interpreting the Present,* Journal for the Study of the Old Testament Supplement Series 237, Sheffield, 62-81.

SIVAN R. 1997: The Presentation of Archaeological Sites. In: DE LA TORRE M. (ed.), *The Conservation of Archaeological Sites in the Mediterranean Region*, Los Angeles, 51-59.

SAGALASSOS: RECONCILING ON-GOING LARGE SCALE EXCAVATIONS WITH THE NATURAL AND HUMAN ENVIRONMENT

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Introduction

When the first European travelers visited the site of Sagalassos (near Aglasun, Burdur province), located in the western Taurus mountains in southern Turkey, they were struck not only by the extent and the good preservation of the ruins, but also by the magnificent scenery of their location.[1] On November 20, 1706 the French traveler Paul Lucas, who rediscovered the site, thus wrote:

> *On voit sur les pointes des branches de la montagne, plusieurs châteaux d'une étendue prodigieuse; j'y contemplai long-temps des merveilles que je ne croiois moi-même qu'avec peine: je veux dire des Villes entières...... Je ne croirai pas avoir perdu mes peines, si jamais j'ai le plaisir de revoir de si beaux pais.*

More than a century later, in 1839, after the site had already been identified as Sagalassos, W. J. Hamilton summarized the feelings of the by then numerous European scholars who had visited its ruins as follows:

> *I believe there is no other ruined city in Asia Minor the situation and extensive remains of which are so striking or so interesting, or which gave so perfect an idea of the magnificent combination of temples, palaces, porticoes, theatres and gymnasia, fountains and tombs, which adorned the cities of the ancient world.*[3]

[1] For an overview see Waelkens 1993, 40-41.
[2] Lucas 1714, 247.
[3] Hamilton 1830, 487.

Half a century later Adolf Header, the team doctor of Count Lanckoronski's Austrian team that carried out the first detailed survey of the site, was less interested in antiquities when he wrote to his mother on September 5, 1885:

> *Wir sind also heute nach dreitägiger Reise glücklch in dem zweiten Ruinenneste angekommen, welches durchstöbert werden soll und von vornherein noch fabelhafter aussieht als Termessus. Deute Dir die Felsabstürze eines vielleicht sechs bis sechseinhalbtausend Fuss hohen ganz nackten Kaltberges, der nach Süden eine mächtige Wand bildet...... Von unserem neuesten Wohnsitze aus geniessen wir eine prachtvolle Aussicht. Zu unseren Füssen das Dorf Aglassan, gleich einen Garten zwischen mächtigen Nussbäumen versteckt, dann ein grünes Wiesenland um das Dorf herum. Etwas weiter ein Hügelzug, hinter dem eine fruchtbare Ebene liegt, auf der wir die gestern zurückgelegte Strecke verfolgen können, bis zu den Höhen des Gebirgspasses, den wir überschritten, dahinter endlich ein Kranz von mächtigen Kaltgebirgen in zerrissenen Formen.*[4]

This lush vegetation of the valleys around Sagalassos must already have formed one of the most striking features in antiquity. At least according to Livy's description of a Roman military campaign in 189 BC: *"They entered the country of the Sagalassians, rich and abounding in all kinds of crops... "*[5]

When the first author initially visited the site in the summer of 1984, he was most struck by the well-preserved ruins. Never in his scholarly life had he experienced such a feeling of a once thriving community frozen in its final decline that was clearly triggered off by a massive earthquake and subsequently buried by centuries of erosion. However, equally overwhelming were the tranquility, the silence and the beauty of this mount site for which words are hardly sufficient (Ills. 1-3). Later, as director of the ongoing excavations, M. Waelkens immediately realized that the fate of the site, both in the past and at present, was completely interlocked with that of its environment and that the study and protection of this environment had to become an essential part of whatever project would be initiated there. Without environmental research no answer could be given either as to why a settlement ever became established here, at an altitude of 1450 to 1600 m above sea level, more than 400 m. above the fertile valley bottom, or why it eventually would develop into a major city. It was also clear that the present environment

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[4] Heider 1886, 37-38.

[5] Livy xxxviii 15:9.

Illustration 1: View of the late Hellenistic fountain house, after anastylosis. Copyright all illustrations in this article: Sagalassos Archaological Research Project.

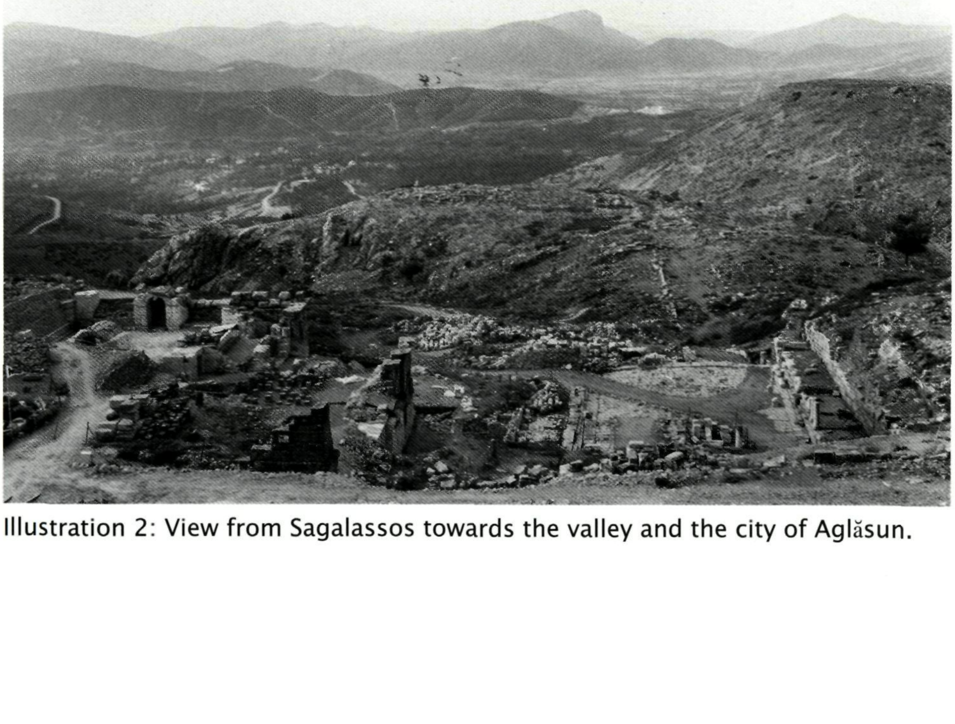

Illustration 2: View from Sagalassos towards the valley and the city of Ağlăsun.

Illustration 3: View of the city center, seen from the theatre.

had been drastically affected by anthropogenic factors and that a reconstruction of its history and exploitation by past and present inhabitants had to be a part of any kind of research. As a result, in 1990, an interdisciplinary research project of the Catholic University of Leuven, directed by the first author, was initiated with the aim of studying and protecting both the site and its natural environment. The goals of the project are threefold:

Research on the Site and its Territory

This part of the program includes two main topics. The first research element is the excavation of the city site, where various working areas have been selected in order to document its urban layout. This research comprises computerized visibility studies to explain the choice of the location of the site as a whole and that of specific monuments; the available water supply and its infrastructure; the political history the religious and cultural life; the economic activities in and near the city (pottery production, bone working, metallurgy, textile industry); and the quality of life (subsistence and physical anthropology).[6]

The second research element includes the study of the chora (territory of

[6] From 1993, the results of these excavations have been published in volumes that appear under the name *Sagalassos* (*Acta Archaeologica Lovaniensia Monographiae*).

the city). This includes the following topics: climatic change; landscape evolution as a result of volcanism, seismic, erosion and hydrological activities; vegetation history, farming and land-use; composition and economic use of animals (subsistence and draught animals); past and present herding practices exploitation of raw materials (quarrying and clay extraction) and settlement history (changing settlement patterns).[7]

Conservation and Protection of the Site and its Monuments

Excavating also means destroying a protective natural cover and endangering finds that suddenly become exposed to a hostile physical and sometimes also a threatening human environment (including vandalism and theft). First and foremost, this includes the conservation of small finds. In order to protect the material for analysis, these artifacts should be cleaned only manually. In the case of heavily corroded metal objects, X-raying or partial cleaning should be used to check the desirability or necessity of a complete cleaning. The latter should be opted for when objects demonstrate an exhibition potential or have specific research value (for example coins which are datable).

However, not only smaller artifacts, but even larger structures and

Illustration 4: View of a late 2nd century BC ashlar wall (of the council house at Sagalassos) before the treatment of its cracks.

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[7] Waelkens & the Sagalassos Team 1997; Waelkens *et al.* 1999.

Illustration 5: Repairing a broken profile of the podium of a 2nd century AD nymphaeum, broken off as the result of frost damage.

their mortars are subject to weathering and decay after their sudden exposure following excavation. Wall veneering or plaster no longer protects the mortar of brick walls, whereas stucco walls, originally applied as an interior decoration, become unprotected exterior surfaces. Even ashlar stones experience damage after excavation. Small cracks filled with earth or sand exposed to winter rains cause larger cracks to form (Ill. 4). Frost can trigger the break up the stone (Ill. 5) and wind erosion can be equally destructive on already weathered surfaces.

Therefore, conservation should become an integral part of any excavation program and site conservators should be present in whatever area is being excavated in order to screen freshly exposed surfaces and identify potential 'flaws'. Since conserving usually is even more time consuming than excavating, the number of conservators should be rather high. But even then, this often serves only a preliminary or temporary intervention and most of the time it will be necessary to follow-up with on-going year-round treatment that will require laboratory and *in situ* tests.

In the case of Sagalassos, different kinds of mortars had to be developed and tested in the laboratory and under actual circumstances (Ill. 6) before a suitable mortar mix could be developed that would be able to survive the harsh climatic conditions (Ill. 7).[8] Equally, in the case of *anastylosis* of monumental structures, the stone needed for re-carving missing structural elements, the kind and the application of Epoxy glue for reassembling broken fragments and the type and strength of anchoring elements for vertical and horizontal connections (dowels and cramps) had to be tested in the lab and on site for heat and frost resistance, stress resistance and breaking patterns before a specific application was selected and applied to *anastylosis* of the late Hellenistic foundation house.[9]

But even for long-term interventions, a delicate balance must be found on the site between preserving its monuments for generations to come and keeping them accessible for future scientific research. As a result, whatever solution (reburial, conservation, *anastylosis* etc.) eventually is opted for in order to protect a monument, it has to be reversible. At Sagalassos, a mid-2nd century AD library with a well-preserved mosaic floor was protected by a roofed structure that can easily be dismantled (Ill. 8).

The site, in its entirety, must also be protected. Sagalassos is located on almost bare, highly erosive slopes, the result of overgrazing during the last

[8] Degryse *et al.* submitted.
[9] Ercan *et al.* 1997.

Illustration 6: Mortar tests at Sagalassos.

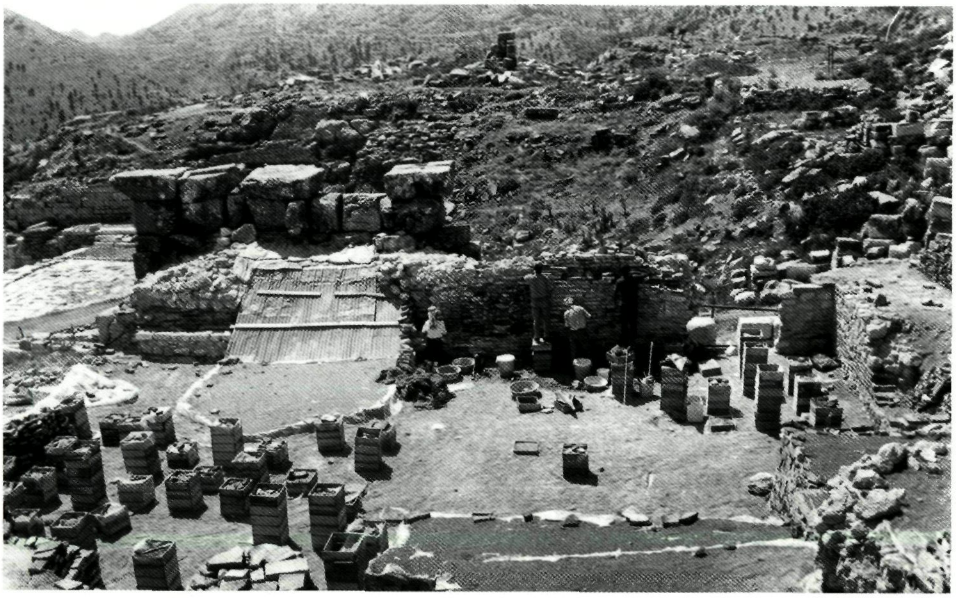

Illustration 7: Repointing ancient brick walls in the Roman Baths at Sagalassos.

Illustration 8: Interior view of the protective building above the Neon Library at Sagalassos.

centuries (see Ill. 3). Since grazing is now forbidden, a new type of vegetation, which based on rain simulation tests carried out by geomorphologists is erosion proof, has started to grow on the site.[10]

Man, however, can even be more destructive than nature. Recently the small city of Aglăsun, located immediately below the site of Sagalassos (see Ill. 2), has become popular as a *yayla* or summer residence for the inhabitants of Antalya, who during the hot season rent summer houses in the city. As a result, protecting the breathtaking and still unspoiled view between the latter and Sagalassos, has become a major task of the excavation team. Therefore, a mutual effort has been initiated by the excavation director and the local authorities whereby both sides try to convince the local people that the site is their heritage as well, and that protecting it together with the unspoiled landscape surrounding it, in the long run will be more rewarding for the future of their children than short-sighted immediate returns and investments in summer houses that will eventually destroy the natural beauty. In order to encourage feelings of affiliation and involvement among the local people with the site and the archaeological project, it is very important that the latter can produce local economic growth by investing as much as possible in local wages (local workforce and transport) and logistics (accommodations), and by purchasing most of the equipment locally resulting in investments that are spread over most quarters of the city. In the case of Sagalassos, some of the workmen have also been trained to become a highly specialized workforce (e.g. for conservation) that continues to work year-round. Aglasun has already completely changed since the start of the project as evidenced by new shops and restaurants that cater to the team and to tourists, but without losing its attractiveness as a small provincial town.

Even more important for the protection of the site than the presence of guards is the effort to demonstrate to the local people that Sagalassos is not simply the remains of a distant culture with no affiliation whatsoever with them. Therefore it is a policy of the Sagalassos project to involve emotionally the local workforce and inhabitants in the site by briefing them regularly on the goals and results of the project and by also placing the latter into a wider framework (for example, the site's future potential).

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[10] Poesen *et al.* 1995; Govers *et al.* 1997

Presentation to the Public

Since public and/or private funding finances every archaeological project, the general public has a right to be shown the results of its investment. In this field, good feedback is the only possible return. This should be done not only by scholarly publications that submit the scientific results to peer review by colleagues, but also by more popular writings and especially by popular lectures. As P. Bahn recently recommended: "Professional archaeologists must make public involvement and interest in their work a priority, while continuing to emphasize that archaeology has a serious purpose that goes far beyond being in Graham Clarke's magnificent phrase, just an intellectual game for the meritocracy."[11] Therefore, making a site accessible to an interested public is also one of the major tasks of any excavation director. Theoretically, reburial is one of the safest methods to preserve excavated monuments for the future, but since non-specialists in that case have hardly any access to their past, it should be avoided as much as possible by developing a technology which can protect ancient monuments, while keeping them at least partly visible.

Since respect is to a large extent the result of understanding, making

Illustration 9: View of the mountain site of Sagalassos as seen from the south.

[11] Bahn 1996, 373.

Illustration 10: View of the theatre of Sagalassos.

Illustration 11: View of the roof of the Neon Library.

people understand the original look and function of an artifact, a monument or a site, should become a major goal of any project. Yet the aim can never be to create an archaeological Disneyland by rebuilding as many structures as possible so that visitors need no longer to appear to their imagination. In our view, the latter should only be guided and rebuilding should only become an option if more than 90% of the original building material is preserved so that one can rely on the principle of *anastylosis*. Very exceptionally, a building can even reclaim its original function, which at Sagalassos, for instance, has been the case with the late Hellenistic fountain house, which is working again and fed by the original, still functioning man-made water supply (Ill. 9). Since most buildings had been planned as part of a larger urban complex which had also been taken into account by their architects, it is preferable that *anastylosis* should not be applied to an isolated monument, which then would rise in the middle of an archaeologically sterile surrounding for which it was not created, but that a group of monuments would be selected for this purpose. In this case however, there should be respect for historical reality, with a clear respect for ALL periods instead of the most flourishing one. In this respect, even a ruin can be considered as a historical document that has to be protected as such. For that reason, it has been decided not to touch the theatre of Sagalassos, which forms both a very romantic ruin, perfectly incorporated into the surrounding landscape, and an eternal testimony of the decline of a once thriving community (Ill. 10).

In the process of restoring or conserving monuments, the landscape

Illustration 12: View of one of the pathways created for tourists at Sagalassos.

Illustration 13: Location of an information panel on one of the resting places.

needs to be taken into account and should not be confronted with disturbing elements. At Sagalassos for instance, the inclination of the modern roof above the Neon Library follows that of the original slope and has been reburied and replanted in order to disappear again into the landscape (Ill. 11).

Nature however, is not only endangered by archaeological activity, but also by tourism. Nothing is more disturbing than to see tourists endangering both themselves and the ancient walls by climbing on the latter, or by visiting a site that has become a giant dump, full of 20th century waste material. Therefore, some solutions should be developed in order to guide visitors through the site. In the case of Sagalassos, this is provided by free guided tours organized by members of the team who take visitors around to the most interesting spots, along the safest routes and without disturbing the ongoing activities. Such a personalized tour however, is not possible throughout the year, and will certainly have to stop once the number of visitors surpasses the capacities of our guides.

Therefore, in collaboration with the Landscape Foundation of Belgium, a number of pathways have been arranged, following as much as possible the pattern of the ancient streets. Only where necessary for safety reasons, steps or short stairways have been built, but the latter are completely reversible and only use materials that are available everywhere on the site, i.e. rubble stones and tile fragments (Ill. 12). A brochure has been printed which proposes various walking tours, with well selected resting points near the most important panoramic views (of both the site and the landscape) or near the most interesting monuments. In those spots, information panels, which can easily be removed for sheltering in the

Illustration 14: Image sequence used for the 3D reconstruction of the SW corner of the Roman baths.

Illustration 15: Views of the 3D reconstruction of the SW corner of the Roman baths.

winter or for updating, have been placed. They rely on computer reconstructions, produced by Jos and Paul Legrand, by means of AUTOCAD technology and show how each spot looked like at a specific point in the past (Ills. 13).

For those however, who cannot afford, either financially or physically, a trip to Sagalasssos, a new technology, bringing the site in virtual reality to the people at home, needs to be developed. As a result, gradually a virtual Sagalassos is being created.

A Virtual Sagalasssos

Virtual reality is a technology that offers promising perspectives for archaeologists. It can help in many ways. New insights can be gained by immersion in ancient worlds, inaccessible sites can be made available to a global public, courses can be given *in situ* and different periods or building phases can coexist. One of the main problems, however, is the generation of these virtual worlds. They require huge amounts of on-site measurements. In addition, the whole site has to be reproduced manually with a CAD- or 3D modeling system. This is very time consuming. Obtaining realistic surface textures is also a critical issue. As a result walls are often approximated by planar surfaces, stones often all get the same texture, statues are only crudely modeled, small details are left out, etc.

An alternative approach consists of constructing 3D models based on images of the site. Recently new automated approaches have been developed. The technique applied at Sagalassos automatically generates textured 3D models from image sequences.[12] This is achieved without prior knowledge of the scene. In addition, the calibration of the camera is automatically retrieved during the reconstruction process. This technique, therefore, offers a great deal of flexibility since it can work with simple hand-held photo- or video cameras. Even zoom and focus can be adapted during the acquisition of the images.

The on-site acquisition procedure consists of recording an image sequence of the scene that one desires to model. To allow the algorithms to yield good results, viewpoint changes between consecutive images should not exceed 5 to 10 degrees. An example of such an image sequence appears in Illustration 14. The further processing is fully automatic. The first step consists of calibrating the image sequence (i.e. obtaining relative position and orientation of the camera up to a scale for the different viewpoints). This is done based on features that are

[12] Pollefeys *et al.* 1998a, 1998b, 1999.

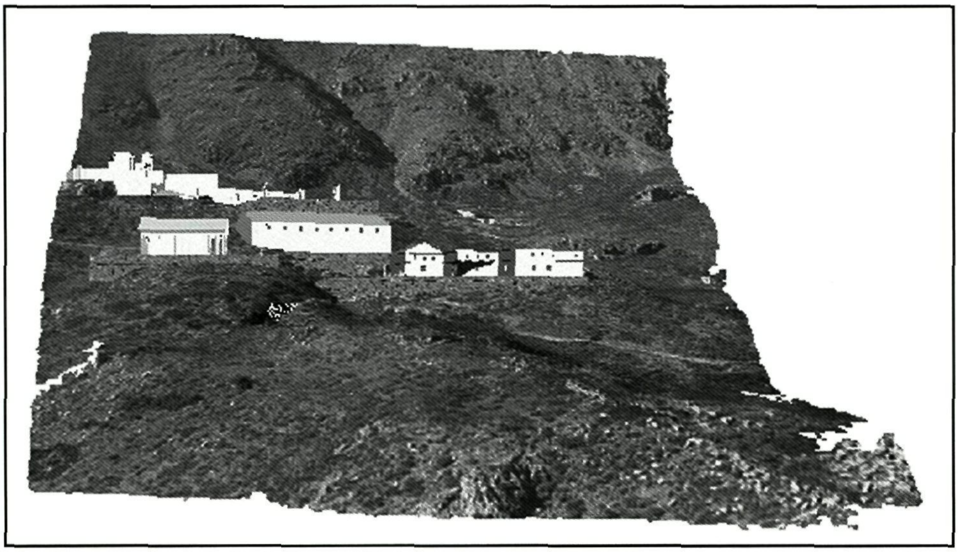

Illustration 16: View of virtual Sagalassos including the CAD models of Jos and Paul Legrand.

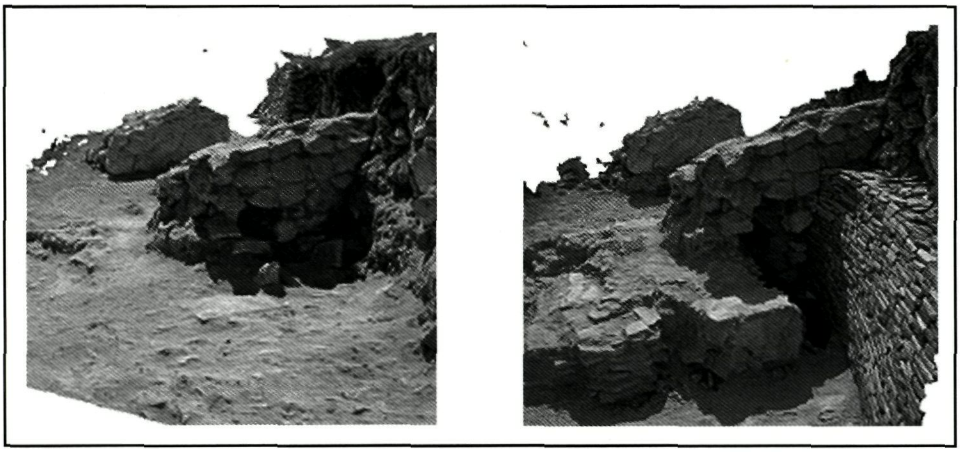

Illustration 17: Two stratigraphical layers of the excavation of an early Byzantine town house.

tracked over consecutive images. The next part is the computation of the surface geometry itself. For every pixel in an image the corresponding points in other images are searched through cross-correlation and an optimal solution is found through dynamic programming. Once corresponding points are known the actual surface is reconstructed in 3D through triangulation. The images can be used as texture maps. The result for the image sequence under consideration can be seen

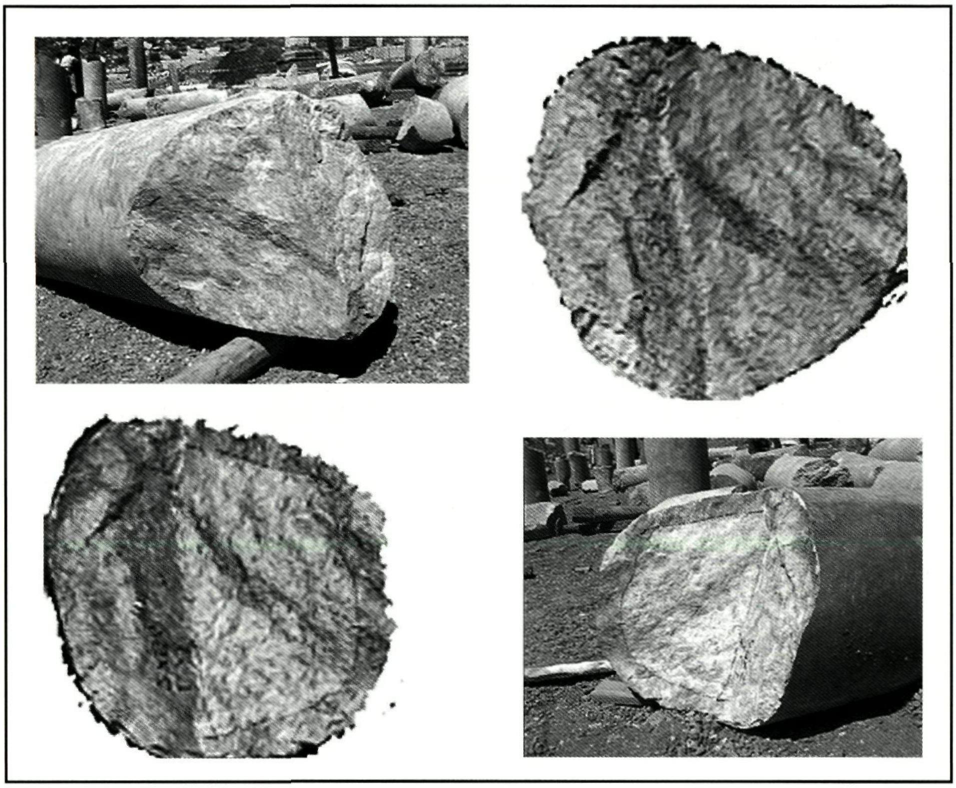

Illustration 18: Two images of the matching parts of a broken column with the corresponding 3D reconstructions of the broken surfaces.

in Illustration 15. An important advantage is that details like missing stones, not perfectly planar walls or symmetric structures are preserved. In addition the surface texture is immediately extracted from the images. This not only results in a much higher degree of realism, but also is also important for the authenticity of the reconstruction. Therefore, the reconstructions obtained with this technique can also be used as a scale model on which measurements can be carried out or as a tool for planning restorations.

The flexibility of this approach makes it possible to apply it to the reconstruction of a model of the whole site. Since the technique that was used is independent of scale, the only different is the distance that the camera should be moved between two consecutive views. Of course, the resolution of the model is restricted. When the goal is to navigate through the model it can be necessary to acquire specific image sequences of points of interest (e.g. monuments). In this case, these image sequences would be processed separately and provide local high-resolution reconstructions. These then need to be integrated into the global reconstruction. Another interesting possibility is to combine the 3D models obtained through this technique with other 3D models. In our case 3D reconstructions of ruined monuments were built in a CAD environment based on archaeological hypotheses. The combination of both types of models can be seen in Illustration 16.

Since the 3D reconstructions from images are obtained almost completely automatically and the on-site acquisition time is very short (i.e. around 1 minute) several new applications are possible. A first possibility consists of recording stratigraphy in 3D. Due to the practical limitations in general the stratigraphy is only recorded along one slice of the excavated sector. Since this does not only involve taking a series of pictures this does not slow down the progress of the archaeological work. In addition, it would be possible to model separately artifacts which are found in these layers. These models could then be combined to yield a 3D database of the excavations. Some preliminary tests were carried out in Sagalassos (Ill. 17).

The technique also has a lot to offer for generating and testing building hypotheses. Due to the ease of acquisition and the obtained level of detail, one could reconstruct every block separately. The different construction hypothesis can then interactively be verified on a virtual building site. Some testing could even be automated. A small test was already carried out successfully on two matching parts of a broken column (Ill. 18).

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References cited

BAHN P. (ed.) 1996: *The Cambridge Illustrated History of Archaeology*, Cambridge.

DEGRYSE P., VAN GEET M., WAELKENS M., SWENNEN R., WEVERS M. & VIAENE W. (submitted): Microfocus Computer Tomography as a Means of Assessing Frost Damage in Modern Restoration Motors, in review at *Archaeometry*.

ERCAN S., PATRICIO T. C. & VAN BALEN K. 1997: The Structural Restoration of the Late Hellenistic Nymphaeum: Principles, Laboratory Tests and Field Applications. In: WAELKENS M. & POBLOME J. (eds.), *Sagalassos IV Report on the Survey and Excavation Campaigns of 1994 and 1995, Acta Archaeologica Lovaniensia Monographiae* 9, Leuven, 423-440.

GOVERS G., POESEN J. & MERTENS S. 1997: Transport of Rock Fragments by Animal Trampling on Scree Slopes: Experimental Results and Archaeological Implications. In: WAELKENS M. & POBLOME J. (eds.), *Sagalassos IV Report on the Survey and Excavation Campaigns of 1994 and 1995, Acta Archaeologica Lovaniensia Monographiae* 9, Leuven, 541-552.

HAMILTON W. J. 1839: *Researches in Asia Minor, Pontus and Armenia with Some Account of their Antiquities and Geology*, London.

HEIDER A. 1886: *Briefe über eine Reise in Kleinasien (24.July 1885 - 30.November 1885), Wien.*

LUCAS P. 1714: *Voyage du Sieur Paul Lucas fait par ordre due Roi dans la Grèce, l'Asie Mineure, la Macédoine et l'Afrique. Tome premier contenant la description de l'Anatolie, de la Caramanie, & de la Macédoine*, Paris.

POESEN J., GOVERS G., PAULISSEN E. & VANDAELE K. 1995: A Geomorphological Evaluation of the Erosion Risk at Sagalassos. In: WAELKENS M. & POBLOME J. (eds.), *Sagalassos III. Report on the Fourth Excavation Campaign of 1993, Acta Archaeologica Lovaniensia Monographiae* 7, Leuven, 341-356.

POLLEFEYS M., KOCH R., VERGAUWEN M. & VAN GOOL L. 1998a: Automatic Generation of 3D Models from Photographs. In: *Proceedings International Conference on Virtual Systems and MultiMedia* (VSMM'98).

POLLEFEYS M., KOCH R., VERGAUWEN M. & VAN GOOL L. 1998b: Virtualizing Archaeological Sites. In: *Proceedings International Conference on Virtual Systems and MultiMedia* (VSMM'98).

POLLEFEYS M., KOCH R., VERGAUWEN M. & VAN GOOL L. 1999: An Automatic Method for Acquiring 3D Models from Photographs. In: *International Archives of Photogrammetry and Remote Sensing* XXXII (Part 5W11), 76-80.

WAELKENS M. 1993: Sagalassos. History and Archaeology. In: WAELKENS M. (ed.), *Sagalassos I First General Report on the Survey (1986-1989) and Excavations (1990-1991), Acta Archaeologica Lovaniensia Monographiae* 5, Leuven, 37-81.

WAELKENS M. & THE SAGALASSOS TEAM 1997: Interdisciplinarity in Classical Archaeology. A Case Study: The Sagalassos Archaeological Research Project (Southwest Turkey). In: WAELKENS M. & POBLOME J. (eds.), *Sagalassos IV Report on the Survey and Excavation Campaigns of 1994 and 1995, Acta Archaeologica Lovaniensia Monographiae* 9, Leuven, 225-252.

WAELKENS M. *et al.* 1999: Man and Environment in the Territory of Sagalassos, A Classical City in SW Turkey, *Quaternary Science Review* 18, 697-709.

CONSERVATION AND PUBLIC MANAGEMENT OF THE ARCHAEOLOGICAL AREA OF POMPEII

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It is now 250 years since Pompeii was discovered in modern times. Stupefaction, astonishment and the assumptions of 18th century antiquarians have given way to archaeological progress and a deepening of historical research, and also to increased numbers of tourists arriving from all four corners of the earth. As we begin a new millennium of human activity our responsibility for Pompeii has three main objectives: safeguarding the original monuments, proper management of the site for the public, and the critical systemisation of archaeological and historical knowledge. This must be achieved by a careful study of original artefacts now conserved in the National Archaeological Museum of Naples, and of the sites of their discovery, by gaining knowledge with strategic excavations about standards of living before 79 AD, by instigating scientific debate, and by developing paleo-environmental and paleo-anthropological investigations. However, it is not necessary to discuss these activities since unanimity on the importance of implementation of these activities has already been achieved by a large number of researchers and research institutes working in cooperation with the Archaeological Authority.

As far as the carrying out of conservation and management work is concerned, a clear definition of historical-archaeological knowledge of the site is an indispensable preliminary condition to complete this phase of activity. The conservation of monuments and the management of visitors remain under the exclusive responsibility of the Archaeological Authority, which must give an account of its actions and its projects, since these may benefit from scientific research activities, or vice-versa.

By Law 352/1997, the Archaeological Authority of Pompeii was awarded administrative, financial and scientific autonomy. The Pompeii Authority is administered by an Administrative Council made up of the Superintendant, the Administrative Director and the senior technical official.

The Administrative Council discusses objectives and draws up the budget. Apart from public funds received from the Ministry of Cultural and Artistic Property or other public institutions, the Authority's income comes from revenue from entry tickets and other visitor services, for example photographic reproductions. The carrying out of Administrative Council decisions falls under the competence of the Authority for all technical-scientific matters, and under the Administrative Director for all administrative and financial matters.

Following the acquisition of this new legal status, the Authority's programme of activities and their implementation are subject exclusively to the decisions of the Administrative Council and no longer come under the Ministry's remit. In addition, the independent revenue from ticket sales has increased the Authority's finances quite remarkably, compared to past years. But it must be said that the funds now available, considerable as they are, remain well below the figure considered necessary in order to guarantee an acceptable standard of conservation within a reasonable timeframe, not only for Pompeii but also in the other archaeological areas under the Authority's jurisdiction.

Unfortunately, staff regulations were not revised by Law 352/1997. The specified tasks, remuneration and administrative regulations of the entire staff remain unchanged, which seriously holds back the Law's potential. For example, it is impossible to plan gratuities for undertaking special tasks, to promote employees on merit or, conversely, to penalise those who are ineffective.

On the principal theme of this report, conservation of monuments and management of the public, the following preliminary observations should be made. These two activities cannot be separated, however distinct they may appear to be. Their link is scientific research, from which restoration and reconstruction projects can be planned. This research is crucial in two domains of activity indispensable to our objectives: restoring and maintaining structures and decorated surfaces (be they painted, stucco, sculptured stones or mosaics) and information and scientific popularisation for a non-specialised public. This last area is apparently the least explored in investigations concerning the quality of the public's experience of Pompeii. No research has been carried out until now to gauge their expectations and the knowledge that visitors have gained from their visit.

To fill in these gaps, complex and protracted measures are needed which have not formed part of the strategic priorities of programmed activities until now. Furthermore, a preliminary estimate of the cost of the work required has shown that the minimum required for special preservation of the exposed area, just at Pompeii, amounts to the equivalent of about 25 annual financial budgets, to be spent exclusively on Pompeii, leaving unmet the no less urgent, albeit smaller, requirements of Herculanum, Oplontis, Stabiae, Boscoreale and the rest of the area covered by the Authority, which, of course, is not possible.

To come then to the activities planned and partly begun in connection with the conservation of Pompeii's archaeological heritage, we recall that it comprises over 44 hectares, i.e. half a million square metres, to which should be added the nine hectares of Herculanum, and the 5 hectares of Oplontis, Stabiae and Boscoreale.

The program of 'special preservation' was drawn up on the basis of a methodological premise: that the major historical interest of Pompeii rests in the exceptional fact that an entire town has been conserved in its original complexity as a functioning organism, and not, as is generally the case in archaeological research, as a limited series of monuments or urban sectors (which would not in any case represent the organic whole of a town from antiquity). Even if one disregards the extent of the exposed area, two-thirds of the original surface, Pompeii's sudden burial has made it possible for us to familiarise ourselves with a 1st century AD Roman town in daily life.

Consequently this special preservation programme has been drawn up on an urban scale, planning homogenous integration of individual preservation and restoration measures, and the coordination (by relating it to the whole) and setting up of utility infrastructures which will guarantee the effectiveness of the measures (for example, the rainwater drainage network) and the welcome for visitors, and the good working of the site (from the electricity supply and data transmission network, to the proper functioning of the sanitary installations).

Within this framework, the special preservation work must guarantee good results in terms of conservation of the original structures and necessary protection of the decorated surfaces that are still in place. In order to do this, techniques and traditional material will be used. Repair works will be limited to an absolute minimum to ensure both the stability of the structures still in place, as well as the in situ preservation of the decorated surfaces which cannot, nor should not, be moved.

The work will proceed according to a plan which is now almost complete. It contains, we trust, an exhaustive description of all the possibilities for implementation, including the details of setting up a service network. Technical details will be dated according to the level of our knowledge in 1998, in technology and scientific research. But so far as the plan's determination to use traditional techniques and materials is concerned, such as wood, terracotta tiles and limestone mortars, it is believed that updating the plan will not alter the visual aspect of the work already carried out.

This minimalist approach comes from the availability of financial resources, and to the lack of solid knowledge concerning the upper parts of antique structures. This gap in knowledge means that the technical precision of roofing reconstructions carried out up until the present time is uncertain, as is that of those that still have to be finished in order to restore Pompeii's original roofs. Besides, so far as information for visitors is concerned, the work that has been done in the past appears to be adequate for restoration, although without the certainty of precision in the restoration, likeness and original size of a complex specimen of Pompeiian architecture. The financial resources available are well below what is needed, so much so that had a full program of reconstruction been followed, it would have resulted in pushing still further into the future the attainment of our objectives for achieving a proper level of conservation for all that has been brought to light up until today.

It seems obvious that this minimalist approach will necessitate redepositing the decorated surfaces of the sites where they had originally been shown, in order to guarantee their conservation. This will be done each time it is felt that the planned preservation on site for both the decorations and the structures would be insufficient to guarantee an acceptable level of conservation. This step, taken with regret, contains nonetheless elements of revenge. All our efforts will show our willingness to augment available funds besides using every available means to return these decorated surfaces to the site in future. This will offer visitors information and reproductions to help them in their understanding of the original antique reality.

One particular undertaking in the special preservation of Pompeii concerns the treatment of those parts in reinforced concrete or with other masonry techniques that have been added to the original antique structures. The documentation was often lost on those projects, which were carried out continually from the 18th century up until the present. It is frequently difficult to determine the period when some sections of the structures were repaired. Extensive archival research has been started both in the Pompeii Authority and in the Naples Authority to retrieve any technical documents of this kind, but it is not expected that results will be coming in soon and there will be many gaps. We have thus begun a file-card system describing the structures, so that any work carried out earlier can be identified and its appearance preserved, also in order to distinguish between the materials used in the different sectors.

For example, we have already discovered that a certain quality of yellow tuff was only used in the modern era. To support this we would need to be able to state cautiously that yellow tuff is not known to have been used in antique structures. In addition, this analytical verification anticipates testing samples from which one could determine the characteristics of the statics of the materials, in the context of realistic projects of reasonable dimensions.

Everything that has been noted concerning the projects, the characteristics of the materials used and the techniques applied should be recorded together in a data system, which would have two principal goals: one, this will constitute the archives of all the conservation work carried out, and two, it will supply all the provisional data needed for the programmed preservation of all interventions, in order to extend the time period of their effectiveness. This last function will be very useful in evaluating the financial resources needed for this preservation. I believe that everyone is aware of the fact that the lack of normal preservation is one of the principal causes for the declining condition of cultural heritage: we would therefore hope not to be found guilty, at least in this respect.

The programmes of intervention and preservation reflect the way the general public uses the site of Pompeii, in for example the conservation of portable articles in museums or of items which have had to be removed in order to guarantee their conservation.

Concerning the public management of visitors to Pompeii, the archaeological area only conserves the skeleton of the antique town, as a large part of the movable items, particularly the most important and best known, have for a long time been deposited with the National Archaeological Museum of Naples. Instead of envisioning the creation of a new museum in Pompeii, which would be impossible as one would not know with which items to begin, unless some were taken back from exhibition in Naples, or by finding more through new excavations, it seems more feasible to set up a complete visiting system to include the Naples Museum as well as the archaeological area, the latter incorporating Herculanum, Oplontis, Stabiae and Boscoreale. For the sites which come under the Pompeii and Naples Authorities, this system can be achieved quite simply by applying a combined and attractively-priced ticket, and by preparing appropriate and coordinated written information materials. Every other aspect of organizing the flow of tourists will be dealt with by tourism operators and the infrastructure's capacity to cope.

Coming back to the actions planned and being carried out by the Pompeii Authority, particular attention has been paid to the management of sections that interface with the contemporary world. This has been done through connecting points of the main communication infrastructures (train, highways, roads), through the urban configuration of modern Pompeii, and, turning towards the interior, through the principal ancient monuments that are considered essential stops on visit itineraries.

After analyzing all this information we decided on another project: to install standard facilities thereby improving the quality of visits to the archaeological area of Pompeii. One essential element of this programme is resiting the main entrance to the ruins close to the ancient Porta Stabia, that is, in the middle of the southern side of the site, the 'center of gravity' in relation to the railway station, the highway tollpost and Circumvesuviana station. This section is inside a very large pine wood, in which will be created a pleasant stopping-place with the necessary services (pay-desks, shops, restrooms, left-luggage area) for both before and after visits to the excavations. There is also an auditorium in the wood where standard audio-visual and computerised facilities can be used either before or after the visit, as desired. The present entrances at Porta Marina and at the Piazza Anfiteatro will continue to function, the present facilities being improved, particularly at Piazza Anfiteatro, where a building is being converted into a visitors' welcome center.

Inside the archaeological site, the main itinerary follows the ancient south/north route from the Porta Stabia to the Porta Vesuvio, and is crossed by routes coming from or towards the Piazza Anfiteatro (to the east) or towards the Porta Marina (to the West). These routes, which expand into the shape of a star from the principal south/north and east/west axis, can be joined outside the walls, along the recently created pedestrian road which connects the Villa of Mysteries to the Porta Stabia, passing via Porta Nola with its necropolis, Porta Sarno and Porta Nocera. Today, the Villa of Mysteries can be visited without having to exit the archaeological area, as was necessary before 1997.

As essential public services are already situated in those sections at the outer limits of the archaeological zone, near to the entrances (where they will continue to be placed in future), two buildings will be constructed for the public for similar purposes inside the site itself. One will be situated in the Casina dell'Aquila, a farm dating from the beginning of the 19th century which although it was built at ground level, it is more than four meters above the level of the ancient town. From this farm there is a panoramic view over the entire area of ancient Pompeii, conveniently at its geometrical center. The visitor can thus take in the full scope of the archaeological area surrounded in the north by Vesuvius, in the west by the Bay of Naples, in the south by the Lattari mountains and in the east by the Apennine range. Work is under way at the Casina dell'Aquila to construct eating places and shops.

The other building will be south of the Forum baths complex. Over the last decades this space was badly remodeled as a restaurant, done in such a way that almost none of the ancient structures were conserved, but rather replaced by modern buildings. The project includes using these spaces for a public information center. The Antiquarium building built after the war close to the Porta Marina will be remodeled and used for temporary exhibitions.

A prototype of a general plan for the archaeological zone with its visitors in mind is being studied, specifically designed for stops and rests. The need for this facility is obvious to all who have visited Pompeii, especially during the summer months. This kind of design can be contentious, and has provoked keen debates amongst both supporters and detractors. The major issues now being studied concern the exact choice of location as well as various details ranging from seats to shelters.

The question of information boards also prompts much argument. With visitors coming from all parts of the world information on the site needs to be given in many languages. This in turn would necessitate a larger area for the stands, or a reduction in the amount of information given. Personally, I have not yet seen an information board that does not spoil the monument it is describing. With Pompeii being so complex, we would need to multiply the number of such stands. So, we are considering the options for providing our visitors with information in another way. This could be through audiophones, small publications or site plans with detailed keys. Considering the number of visitors, expectations are that the unit cost of these instruments should be limited and the cost covered by a slight increase in the price of the entry ticket, which is presently less than the price of a cinema seat. There will be an in-depth analysis of this question from all possible angles. However, we have noticed that although the public complains about a lack of facilities, it is not often inclined to use, or pay, for these services when they are offered.

Didactic services are supplied by archaeologists selected on a national level. However, the offer of this extra but optional service has caused lively remonstrations, from Italians as well as foreigners; it would seem that the desire for free facilities is international. It is, nonetheless, obvious that a visit to Pompeii will mean an increase in expenditure for visitors. Indeed, the Pompeii Authority finances are insufficient to ensure that both the main task of safeguarding cultural heritage, and the necessary task of providing public facilities, are accomplished.

In any case, there is no justification for placing the provision of free services above that of providing eating places, simply by noting that visitors come to Pompeii to see the ancient monuments and not to enjoy the facilities.

The contracts for completing the public facilities, from the ticket offices to the restaurants, from publications to merchandising, will be put out to tender as soon as the works around the Casina dell'Aquila have been completed. Along with the progress taking place in the special preservation work, which is making more and more of the archaeological area usable, we hope that the opening of these facilities will make a visit to the ancient town buried by Vesuvius increasingly attractive.